



# Investing in the Future of Jobs and Skills

## Scenarios, implications and options in anticipation of future skills and knowledge needs

### Sector Report Distribution and Trade



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## Preface

This report presents the final results of the study *Comprehensive analysis of emerging competences and economic activities in the European Union focusing on the distribution and trade sector*. The report is part of a series of sixteen future-oriented sector studies on innovation, skills and jobs under the same heading, commissioned by the European Commission (DG Employment, Social Affairs and Equal Opportunities). Eleven of these studies were executed by a core consortium led by TNO (Netherlands Organization for Applied Scientific Research) and consisting of TNO Innovation Policy group (Leiden, the Netherlands), TNO Labour (Hoofddorp, the Netherlands), TNO Innovation and Environment (Delft, the Netherlands, SEOR Erasmus University (Rotterdam, the Netherlands) and ZSI (Centre for Social Innovation, Vienna, Austria). The core consortium was in charge of the overall management of the study, the further elaboration and application of the overall approach and methodology, as well as data collection and analysis. This study on future skills and jobs in the distribution and trade sector has been executed by core team staff (see annex 1 for team composition). We would like to thank Prof. Christiane Hipp (Brandenburg Technical University – Cottbus, Germany), Prof. Javier Casares (Universidad Complutense de Madrid, Spain) for their comments and suggestions to earlier versions of this report.

The study was carried out during the period January 2008-April 2009. Stakeholders in the sector, including the European sectoral partners and representatives of various other organisations, have been involved in various ways and forms throughout the study. This included a sectoral kick-off meeting at the start of the study and three multisectoral stakeholder meetings in Brussels during which intermediate results of the studies were presented and discussed. Valuable workshop discussions in the frame of the project were held and inputs received from a number of experts. Apart from multiple inspiring consortium ('internal') workshops, two main 'external' workshops were held.

A draft final version of this report was validated and complemented during a second external, final workshop in Brussels on 19 and 20 February 2009. The final workshop brought together an apt mixture of different European and national sector experts representing the industry, European social partners, other various representative organizations, academia as well as the European Commission (see Annex 2 for a full list of participants). The workshop, which formed an explicit and integral part of the methodological approach, yielded a number of helpful comments and insights which have been used in further finalising the study. We express our sincere gratitude to all workshop participants and to all those who contributed to this study, in particular also Donald Storrie of the European Foundation for the Improvement of Living and Working Conditions. A special word of thanks holds for the European Commission, notably Jean-François Lebrun and Manuel Hubert, who proved to be excellent guides during the project.

Delft, May 2009

Dr Frans A. van der Zee (overall project leader)





# 1 General introduction

This report presents the final results of the study Comprehensive analysis of emerging competences and economic activities in the European Union in the Distribution and Trade sector. The report is part of a series of sixteen future-oriented sector studies on innovation, skills and jobs under the same heading, commissioned by the European Commission (DG Employment, Social Affairs and Equal Opportunities). The study was executed by a consortium led by TNO (Netherlands Organization for Applied Scientific Research) and consisting of TNO, SEOR – a consultancy of Erasmus University (Rotterdam, the Netherlands) and ZSI (Centre for Social Innovation, Vienna, Austria). The study was carried out during the period January 2008-April 2009.

While the main focus of the study is on the future of skills and jobs by 2020, the study is both backward- and forward-looking in nature. It analyses recent relevant sector developments and trends and, at the same time, depicts the current state of play in the sector with an emphasis on innovation, skills and jobs. Current trends and developments form the stepping stone and fundament for the second and third future-oriented part of the study which is scenario-based, forward-looking and exploratory in nature.

## **Background and context**

The study should be placed against the background of the EU's renewed Lisbon strategy in which securing and improving EU competitiveness and redeploying the European economy to new activities with more value-added and new and better jobs are key. In the process of change and restructuring to adapt to new realities, there is a need for a more strategic management of human resources, encouraging a more dynamic and future-oriented interaction between labour supply and demand. Without there is the risk that bigger shortages, gaps and mismatches of skills will result not only in structural unemployment but also hamper longer-term competitiveness.

Skills and jobs are of vital importance for the future of the European economy and have recently gained increasing attention, both at national and EU level. As stressed by the European Council in March 2008, investing in people and modernising labour markets is one of the four priority areas of the Lisbon Strategy for Growth and Jobs. The New Skills for New Jobs initiative launched in December 2008 (European Commission, 2008) elaborates on how this could best be done. The initiative aims to enhance human capital and promote employability by upgrading skills, as well as to ensure a better match between the supply of skills and labour market demand. More transparent information on labour market trends and skills requirements, but also the removal of obstacles to the free movement of workers in the EU, including administrative barriers would help achieve this goal, and improve occupational, sector and geographical mobility. The initiative also stresses the need to improve the Union's capacity for skills assessment (by improved monitoring and forecasting), anticipation (by better orientating skills development) and matching with existing vacancies. The current financial and economic crisis makes these challenges even more pressing. Further strengthening the economic resilience and flexibility of the European economy and its Member States calls, along with other measures, for support of employment and further facilitation of labour market transitions (European Commission, 2008a:10).

## **Approach and methodology**

The study takes a longer term future perspective, and looks ahead to 2020, but also back, and takes a highly aggregated European perspective. While it is fully acknowledged that more detailed Member State and regional analyses are important and vitally important for anticipating future skills and knowledge needs, the European perspective has been central in this analysis. Key to the study and a common point of departure was the use of a pre-defined methodological framework on innovation, skills and jobs (Rodrigues, 2007). During the course of this study this framework has been further developed, operationalised and applied to the sector. The approach combined desk research and expert knowledge available in a broad and dedicated research team with the knowledge and expertise of ‘external’ sector experts. The purpose of this *common uniform methodology* is to deliver results that enable comparisons across and between sectors and hence enable the preparation of possible future actions to investigate the topic of new future jobs and skills for Europe, by encouraging a more effective interaction between innovation, skills development and jobs creation. The methodology is structured along various steps, each step providing inputs and insights for next steps to come. Overall, the methodology covers the following steps:

Step 1. Identification of economic activities to be considered (i.e. sector selection)

Step 2. Main economic and employment trends and structures by sector

Step 3. Main drivers of change

Step 4. Main scenarios

Step 5. Main implications for employment – changes by job function

Step 6. Main implications for skills – emerging needs by job function

Step 7. Main strategic choices to meet future skills and knowledge needs

Step 8. Main implications for education and training

Step 9. Main recommendations

Step 10. Final Workshop.

## **Further and next steps**

The results of this study – along with 15 other sector studies using the same approach and being released at the same time - will serve as a guide in launching further EU-led but also other actions, by industry, sectoral partners, education and training institutes and others. One important aim of the study is to promote the strategic management of human resources and to foster stronger synergies between innovation, skills and jobs in the sector in the medium and longer run, taking into account the global context and encouraging adaptations to national and regional specificities. A very important element in further enabling and facilitating these goals is sound and continuous monitoring together with a uniform and consistent way of analysing future skills and knowledge needs for the various decision-making levels involved. The approach taken in this study aims to provide a broader framework that does exactly this. Further dissemination and explanation of the methodology at the Member State, regional and local level are therefore vital in the follow-up of this EU level study, as is its actual take-up. The results of the study include implications, conclusions and recommendations to anticipate future skills and knowledge needs. It does not in any way, however, assess or evaluate current or planned policies. Conclusions and recommendations may therefore coincide but may also oppose current policies and/or policy plans at the EU, national or regional level. The implications, conclusions and recommendations logically follow from scenarios – credible plausible sector futures – meant to better structure and anticipate possible future developments.

### **Looking ahead in times of crisis**

Even though the year 2020 may currently seem far off for most of us, the future will announce itself earlier than we think. In times of financial and economic crisis there is a logical tendency to focus on the now and tomorrow; withstanding and surviving the crisis are prime. Nevertheless, at the same time the medium and longer term ask for adequate attention. In this current age of continuing and pervasive globalisation, strong technological change and innovation affecting production and consumption around the globe, timely preparations to be able meet future skills and job needs are called for more than ever before. This is even more true in the face of an ageing European society and ditto workforce.

### **Contents in three parts**

The report consists of three main parts. Part I analyses recent relevant sector developments and trends and depicts the current state of play in the sector, with an emphasis on innovation, skills and jobs. The findings of Part I of the report combine original data analysis using Eurostat structural business statistics and labour force survey data with results from an extensive literature review of relevant already existing studies. While giving a clear and concise overview of the most important trends and developments, the prime function of Part I is to provide the fundamentals and building blocks for Part II of the study. The findings of Part I are based on the present and the recent past. The second part of the report is future-oriented and looks at sectoral developments and more specifically developments in skills and jobs in and towards 2020. The core of part II consists of plausible future scenarios and their implications for jobs, skills and knowledge. These implications have been analysed for various job functions. In a final part III, a range of main strategic options ('choices') to meet the future skills and knowledge needs is reviewed, including implications for education and training. The study concludes with a number of recommendations for the sector (individual firms, sector organizations, sectoral partners), education and training institutes and intermediary organisations, and last but not least, policy-makers at various levels, ranging from the EU to the local level. Terminology used in this report is further explained and defined in a Glossary at the end of this report.



# Part I

## Trends, Developments and State-of-Play

## Part I. Trends, Developments and State-of-Play

### **Guide to the reader**

Part I presents the results of steps 1, 2 and 3 of the common methodology applied to the Distribution and Trade sector. Step 1 delineates and defines the sector. Step 2 presents the main economic and employment trends and developments in the sector (mapping) and reports the results of a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis. Step 3 analyses the main drivers of change of relevance for the sector based on a meta-driver approach and expert opinion. Part I of the report consists of 8 chapters. Chapter 2 identifies and statistically defines the sector. Chapter 3 provides an overview of the structural characteristics of the sector, including developments and trends in employment, production and value added. It contains information on work organisation (part-time/full-time, gender, age), and industrial relations, but also on emergent trends by function. It also addresses existing partnerships for innovation, skills and jobs, one of the possible policy instruments to better prepare for and adapt to the future, facilitate mutual learning and boost innovative capacity both at the sector and firm level. While not part of the methodology as such, partnerships form an interesting example of how the development of skills and jobs can be linked to innovation. Chapter 4 discusses the value chain (network) and its evolution over time, including issues of restructuring and relocation. Chapter 5 focuses on innovation, R&D and technological change, while chapter 6 analyses the impact of globalisation and trade on and for the sector. Chapter 7 highlights the importance of regulation especially in relation to employment. Chapter 8 provides the results of a SWOT analysis of the sector. Chapter 9 concludes with an overview of the most important drivers for the sector.

## 2 Defining the sector

The distribution and trade sector is defined by NACE as category *G Wholesale and Retail Trade, Repair of Motor Vehicles, Motorcycles and Personal and Household Goods*. NACE Rev. 1.1 includes three main categories: wholesale and retail trade and repair of motor vehicles and motorcycles (NACE code 50), wholesale trade, except of motor vehicles and motorcycles (ditto, 51), and retail trade, except for motor vehicles and motorcycles (ditto, 52). The most recent classification NACE Rev 2 – introduced in 2008 and gradually taking effect – includes the same main categories and resulted in some slight changes in the sub categories. The most important change is that the repair of personal and household goods is no longer included. Other changes are the inclusion of more types of retail sale, the inclusion of ICT equipment as product group and the removal of the distinction between new and second-hand goods. Table 2.1 shows the classification of the sector according to NACE Rev 1.1 and NACE Rev 2. Since the contents of part I relate to trends and part I is predominantly backward-looking in nature, based on time series, analyses will follow the NACE Rev 1.1 classification.

This report focuses on the distribution and trade sector as a whole with an emphasis on retail trade. The trade and repair of motor vehicles and motorcycles and the sale of automotive fuels is not part of this report<sup>1</sup>. Where applicable and data is available, attention will be given to the sub-sectors in retail and wholesale trade. When discussing data related to the whole distribution and trade sector, we will use the terms ‘distribution and trade’, ‘wholesale and retail trade’ and ‘commerce’ interchangeably. When we discuss the sub-sectors in more detail we will use the terms ‘wholesale trade’ and ‘retail trade’.

## 3 Structural characteristics of the sector: past and present

### 3.1 Employment, production and value-added

The distribution and trade sector (NACE 50, 51 and 52) accounted for 6.2 million enterprises in EU-27 in 2004, employing over 30 million people. With inclusion of Romania and Bulgaria, this number had grown to 33.3 million in 2006<sup>2</sup>. The total turnover in the distribution and trade sector amounted to €7,140 bn in 2004 (Eurostat, 2007a). The total sector generated €998 bn and €1,352 bn of value added in 2004 and 2006, respectively, the latter being equivalent to 11.8% of EU GDP. In terms of the number of enterprises (60.2%) and employment (55.5%), the retail trade is the largest sector. However, in terms of turnover (54.9%) and value added (46.4%), the wholesale trade sector is the largest. The motor trade sector is the smallest, with a share of 15.1% in the value added of the total distribution and trade sector (2004 figures). Table 3.1 presents an overview of the main indicators for the sector in 2004; more detailed data are provided in subsequent tables.

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<sup>1</sup> As agreed during the sectoral kick-off meeting of 7 March 2008.

<sup>2</sup> Note that Romania and Bulgaria officially joined the EU on 1 January 2007. The figures presented throughout this report assume Romania and Bulgaria as part of the EU, however, as they officially are nowadays. Note that employment data includes, whereas value added data exclude the two new entrants.

**Table 2.1 Statistical classification distribution and trade sector**

	<i>NACE Rev 1.1</i>	<i>NACE Rev 2</i>
Wholesale and retail trade of motor vehicles and motorcycles	50. Sale, maintenance and repair of motor vehicles and motorcycles; retail of automotive fuel 50.1 Sale of motor vehicles 50.2 Maintenance and repair of motor vehicles 50.3 Sale of motor vehicle parts and accessories 50.4 Sale, maintenance and repair of motorcycles and related parts and accessories 50.5 Retail sale of automotive fuel	45. Wholesale and retail trade and repair of motor vehicles and motorcycles 45.1 Sale of motor vehicles 45.2 Maintenance and repair of motor vehicles 45.3 Sale of motor vehicle parts and accessories 45.4 Sale, maintenance and repair of motorcycles and related parts and accessories
Wholesale trade	51. Wholesale trade and commission trade, except of motor vehicles and motorcycles 51.1 Wholesale on a fee or contract basis 51.2 Wholesale of agricultural raw materials and live animals 51.3 Wholesale of food, beverages and tobacco 51.4 Wholesale of household goods 51.5 Wholesale of non-agricultural intermediate products, waste and scrap 51.8 Wholesale of machinery, equipment and supplies 51.9 Other wholesale	46. Wholesale trade, except of motor vehicles and motorcycles 46.1 Wholesale on a fee or contract basis 46.2 Wholesale of agricultural raw materials and live animals 46.3 Wholesale of food, beverages and tobacco 46.4 Wholesale of household goods 46.5 Wholesale of ICT equipment 46.6 Wholesale of other machinery, equipment and supplies 46.7 Other specialised wholesale
Retail trade	52. Retail trade, except of motor vehicles and motor cycles; repair of personal and household goods 52.1 Retail sale in non-specialised stores 52.2 Retail sale of food, beverages and tobacco in specialised stores 52.3 Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles 52.4 Other retail sale of new goods in specialised stores 52.5 Retail sale of second-hand goods in stores 52.6 Retail sale not in stores 52.7 Repair of personal and household goods	47. Retail trade, except of motor vehicles and motorcycles 47.1 Retail sale in non-specialised stores 47.2 Retail sale of food, beverages and tobacco in specialised stores 47.3 Retail sale of automotive fuel in specialised stores 47.4 Retail sale of ICT equipment in specialised stores 47.5 Retail sale of other household equipment in specialised stores 47.6 Retail sale of cultural and recreation goods in specialised stores 47.7 Retail sale of other goods in specialised stores 47.8 Retail sale via stalls and markets 47.9 Retail trade not in stores, stalls or markets

Source: Eurostat (2007b)



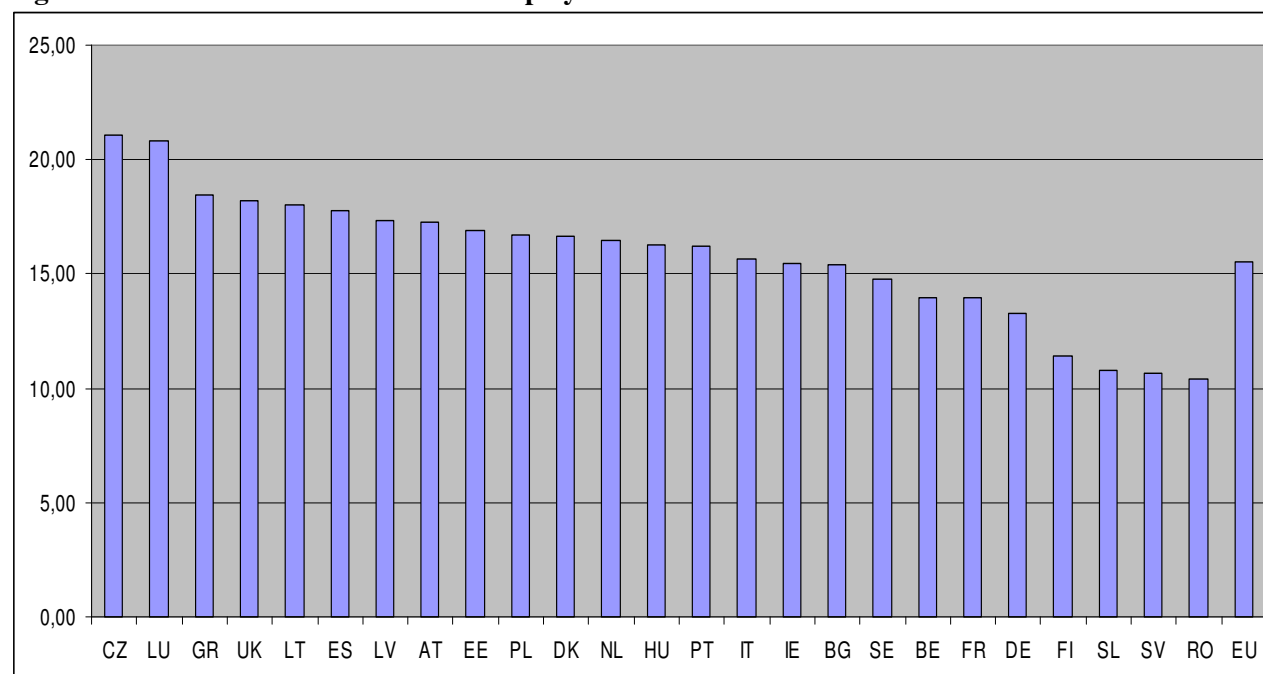
**Table 3.1 Main indicators for the distribution and trade sector in 2004 and 2006 (in brackets)**

	Number of enterprises		Turnover		Value added		Employment	
	(thousands)	(% of total)	(million euro)	(% of total)	(million euro)	(% of total)	(thousands)	(% of total)
Distribution and trade	6 199.5	100	7 139 546	100	997 661 (1 352 014)	100 (100)	30591 (33 340)	100 (100)
Motor trade (NACE 50)	782.3	12.6	1 185 418	16.6	150 599 (17.7)	15.1 (17.7)	4 067 (4491)	13.3 (13.5)
Wholesale trade (NACE 51)	1 682.2	27.2	3 916 076	54.9	462 707 (578 386)	46.4 (42.8)	9 554 (10 372)	31.2 (31.2)
Retail trade (NACE 52)	3 735.0	60.2	2 038 052	28.5	384 355 (534 457)	38.5 (39.5)	16 970 (18 477)	55.5 (55.4)

Source: data 2004: Eurostat 2007a. data 2006: Eurostat/TNO.

### Employment

Of the 33.3 million jobs in 2006, 18.5 million were in the retail trade sector (55.4%), 10.4 million jobs in the wholesale trade sector (31.1%), and 4.5 million jobs in the wholesale and retail trade of motor vehicles (13.5%). Almost 81% of the jobs in the distribution and trade sector were located in the old Member States (EU15). Among the EU15, the large countries (United Kingdom, Germany, Italy, France and Spain) also accounted for most of the jobs in the commerce sector (each between 13 and 20% of the European total), although the Netherlands had a relatively large number as well (5%). Poland and Czech Republic had the largest number of jobs among the new Member States.

**Figure 3.1 Share of commerce in total employment in 2006**

Source: Eurostat / TNO

The commerce sector delivers a substantial amount of jobs in the various Member States. In the EU25 (no data for Malta and Cyprus) the commerce sector has a share of almost 16% in the total employment. The commerce sector in Luxembourg and Czech Republic has with

approximately 20% the highest share in total employment in these countries. Figure 3.1 presents the share for the Member States in 2006.

In Europe (EU22) the commerce sector's employment grew with 2.4% in the period 2000-2006 (Table 3.2). In the old Member States this growth was lower (1.9%) than in the new Member States (4.3%). In many countries, the sector is, in terms of employment, upcoming or a winner. Only in Greece, Slovenia, Luxembourg and the Netherlands jobs were lost in the period 2000-2006. This means that the sector could be regarded as a strong contribution to the employment in Europe. Rising demands, following from increasing household incomes and GDP/capita) will result in more employment because of the sector's labour intensity.

**Table 3.2 Employment distribution and trade, 2000 - 2006**

	Level 2006	Annual growth	Share in EU	Change in share
EU	33 340	2.4	100	0
EU15	26 879	1.9	81	-2
NMS	6 461	4.3	19	2
Winning	13 227	2.9	40	1
Losing momentum	2 181	-0.7	7	-1
Upcoming	17 787	2.8	53	1
Retreating	144	-0.9	0	0
Definition	Level (*1000)	Average annual growth (%)	Share in EU employment sector (%)	Change in share in EU employment sector (%)
	2006	2000-2006	2006	2000-2006
	Concentration <sup>3</sup> >100		Concentration < 100	
Growth	<b>Winning:</b> Ireland, Spain, Austria, Portugal, United Kingdom, Latvia, Poland		<b>Upcoming:</b> Belgium, Germany, France, Italy, Denmark, Finland, Sweden, Bulgaria, Czech Republic, Estonia, Lithuania, Hungary, Romania, Slovakia	
Decline	<b>Losing momentum:</b> Netherlands, Greece		<b>Retreating:</b> Luxembourg, Slovenia	

Source: Eurostat / TNO. Throughout this report, a change in volume or absolute number between two years - e.g. the number of jobs - is measured as the average annual growth. Similarly, a change of a share or an index is measured as total change over the entire period. That is, if the share in 2000 was 10% and in 2006 15%, we report a change of share of 5%.

In the United States, the commerce sector accounted for 21.2 million jobs in 2006; over 70% of these jobs were in the retail sector, and 30% in wholesale. Since 1996, the average annual growth rate in jobs was 0.7% (US Department of Labour, Bureau of Labor Statistics<sup>4</sup>). In Japan, the commerce sector employed 11.6 million people in 2004, of which 67% were employed in the retail sector (Ministry of Economy, Trade and Industry, Census of Commerce<sup>5</sup>).

<sup>3</sup> See for explanation Box 1.

<sup>4</sup> <http://www.bls.gov/data/home.htm>

<sup>5</sup> <http://www.meti.go.jp/english/statistics/tyo/syougyo/index.html>

**Box 1. Concentration index: what it is and what it measures**

The concentration index assesses the relative contribution of a specific sector to the national economy compared to a greater entity, such as the EU, thereby correcting for the size of the country. In more general terms, the concentration index is a measure of comparative advantage, with changes over time revealing changes in the production structure of a country. An increase of the concentration index for a sector signifies relatively fast growth of that particular sector in the country concerned compared to the same sector in the EU.

How does the concentration index work in practice? We'll give a few examples: if sector x represents a 5% share of the German economy and a 5% share of the EU economy, the concentration index of sector x equals a 100. If sector x represents 5% of the German economy, but 10% of the EU economy, the concentration index of sector x is 50. If the same sector x represents 10% of the German economy and 5% of the EU economy, the concentration index of sector x is 200.

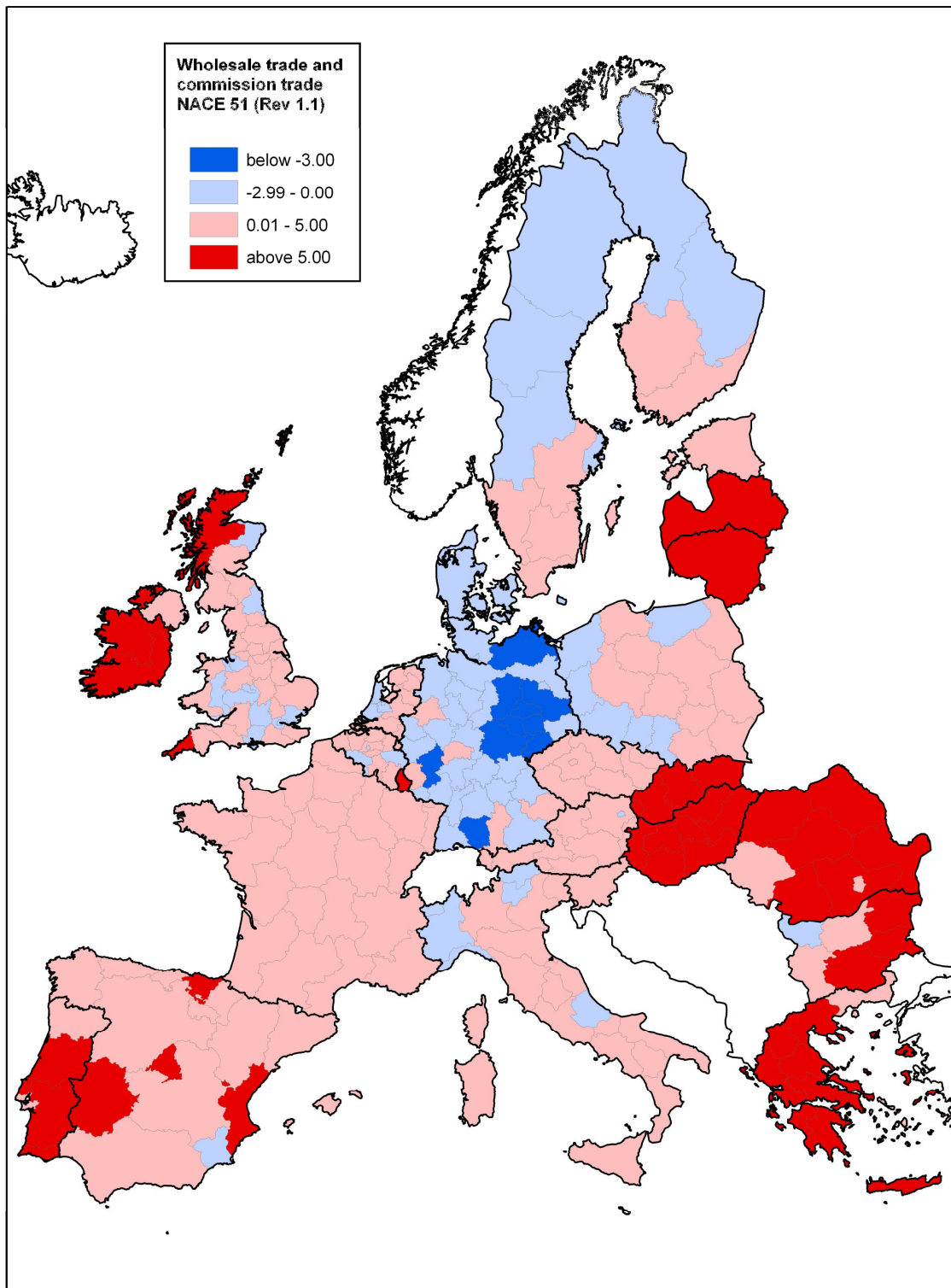
The concentration index concept can be applied using different indicators (variables). In our study we measure the concentration index using employment, value added and trade, in order to make a distinction between the relative performance of countries EU-wide. We distinguish between four country groupings, each signifying a different sector performance over time. If a sector in a country has a strong position (hence showing a concentration index higher than 100) and has experienced a clear index growth over the last years, the sector is defined as winning in that country. If the sector has a strong position, but experienced a decline of the concentration index, we say the sector is losing momentum. If the sector has a weak position, but gained in the past, we say that the sector in that country is upcoming. If the sector has a weak position and experienced a decline of the index, we say that the sector is retreating.

**Table 3.3 Employment wholesale trade and commission trade, except motor vehicles and motorcycles (NACE 51), 2000-2006**

	Level 2006	Annual growth	Share in EU	Change in share
EU	10 372	2.1	100	0
EU15	8 180	1.4	79	-3
NMS	2 192	4.9	21	3
Winning	4 914	3.2	47	3
Losing momentum	929	-1.0	9	-2
Upcoming	3 239	2.6	31	1
Retreating	1 290	-0.2	12	-2
Definition	Level (*1000) 2006	Average annual growth (%) 2000-2006	Share in EU employment sector (%) 2006	Change in share in EU employment sector (%) 2000-2006
	Concentration > 100		Concentration < 100	
Growth	<b>Winning:</b> Belgium, Italy, Luxembourg, Spain, Austria, Portugal, Sweden, Bulgaria, Estonia, Latvia, Poland, Romania, Slovakia		<b>Upcoming:</b> Germany, France, Ireland, Finland, Czech Republic, Lithuania, Hungary	
Decline	<b>Losing momentum:</b> Netherlands, Denmark, Greece		<b>Retreating:</b> United Kingdom, Slovenia	

Source: Eurostat/TNO

Figure 3.2 Changes in employment in wholesale by NUTS 2 region, 1999-2005 (in annual percentage change)



Source: TNO based on Eurostat

In wholesale trade, EU employment grew with 2.1% annually in the period 2000-2006 (Table 3.3). In the EU15 this average annual growth rate was lower (1.4%) than in the new Member States (4.9%). In many countries, the sector was in terms of employment growth rates a winner or upcoming. Only in Denmark, Greece, the Netherlands, the United Kingdom and Slovenia employment growth was lagging behind.

Figure 3.2 presents employment changes (annual change in %) in wholesale in the various regions in Europe for the period 1999-2005. In Latvia, Lithuania, Ireland, Slovakia, Hungary, almost all regions of Romania, the western regions of Bulgaria, southern regions of Portugal, Luxembourg, Greece and in a few Spanish regions employment has been growing with more than 5% annually. In the United Kingdom, Sweden, France, Poland, Italy, Belgium, Germany and the Netherlands some regions show a decreasing, whereas others show an increasing employment trend. In Sweden and Finland there is strict line between the northern and southern parts of the county. In Germany employment in a few regions is increasing, but in most regions it is decreasing, in several even with more than 3% annually.

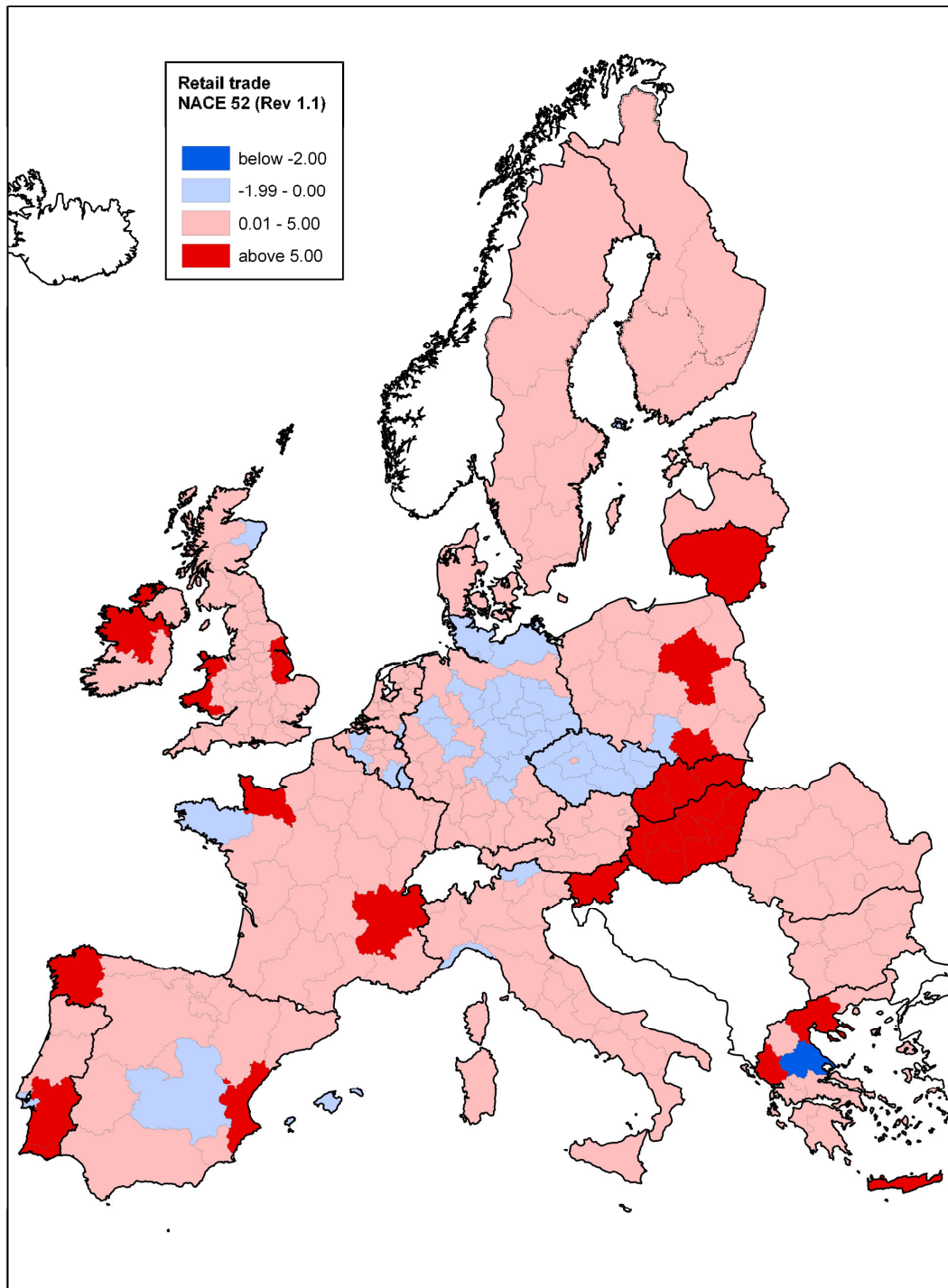
Retail has the biggest share in the sector's employment and employment growth figures are similar to wholesale trade (Table 3.4). European employment in retail grew with 2.3% annually in the period 2000-2006, while in EU15 this growth rate was 2.1%. In the new Member States employment grew with 3.3% annually. In many countries employment in retail is growing relatively fast. In Greece, Luxembourg, Romania and Slovenia, retail employment growth is lagging behind.

**Table 3.4 Employment retail trade, except of motor vehicles, motorcycles; repair of personal and household goods (NACE 52), 2000-2006**

	Level 2006	Annual growth	Share in EU	Change in share
EU	18 477	2.3	100	0
EU15	15 017	2.1	81	0
NMS	3 460	3.3	19	0
Winning	8 003	2.6	43	0
Losing momentum	431	-4.3	2	-1
Upcoming	9 478	3.3	51	2
Retreating	563	-3.2	3	-1
Definition	Level (*1000) 2006	Average annual growth (%) 2000-2006	Share in EU employment sector (%) 2006	Change in share in EU employment sector (%) 2000-2006
	Concentration > 100		Concentration < 100	
Growth	<b>Winning:</b> Netherlands, Ireland, Spain, Portugal, United Kingdom, Latvia, Poland		<b>Upcoming:</b> Belgium, Germany, France, Italy, Denmark, Austria, Finland, Sweden, Bulgaria, Czech Republic, Estonia, Lithuania, Hungary, Slovakia	
Decline	<b>Losing momentum:</b> Greece		<b>Retreating:</b> Luxembourg, Romania, Slovenia	

Source: Eurostat/TNO

Figure 3.3 Changes in employment in retail by NUTS 2 region, 1999-2005 (in annual percentage change)



Source: TNO based on Eurostat

Figure 3.3 presents the average annual change in employment in retail in the various regions in Europe during the period 1999-2005. Employment is increasing strongly in Lithuania, Slovakia, Hungary and Slovenia, as well as in the northern regions of Ireland and in a few regions in Spain, France, Portugal, the United Kingdom, Poland and Greece. In most countries there are hardly any differences between regions and in most countries employment is increasing somewhat. An exception is Germany where half of the regions show decreasing employment figures, especially in the northern and eastern regions. Also in Belgium there are several regions with decreasing employment. The Netherlands, the United Kingdom, Spain, France, Italy and Poland have a single region showing slowly decreasing employment. The only region with substantially diminishing employment figures is located in Greece.

### **Trends in value added**

The value added for the whole distribution and trade sector in the EU22<sup>6</sup> amounted to €1,352 bn in 2006. Almost 43% of the sector's value added was realised in the 'Wholesale trade and intermediaries', closely followed by the 'Retail trade' with almost 40%. The remaining 17% was realised in 'Wholesale and retail trade and repair of motor vehicles and motorcycles.' Altogether, the distribution and trade sector accounted for 11.8% of the total GDP in the EU22. In the new Member States (EU7) this share was even 16.1%. Almost 93% of the sector's value added in Europe was realised in the EU15 (i.e., the old Member States).

In general, the growth of sectoral value added was higher compared to the overall GDP growth in the EU22, although it stalled somewhat after 2000; from 2.8 before 2000 to 2% after 2000. Especially in the new Member States (EU7), the value added in the distribution and trade sector grew faster (5.4%) than the overall GDP (3.2%) over the period 1995-2006. This growth follows from the increasing demand in those countries.

The concentration index (see box 1 below) shows that the winning countries are, except for the Netherlands and the United Kingdom, among the new Member States: Czech Republic, Estonia, Poland, Slovenia and Slovakia. The upcoming countries are Austria, Finland, Sweden and Hungary. In terms of value added, the sector is in retreat in some large economies: France, Germany, Italy, Spain, and also in Denmark and Ireland.

Tables 3.5, 3.6 and 3.7 present data on the sectoral value added. Value added in wholesale trade increased with an annual growth of 3.2% in the entire EU; in the new Member States this was 5.7%. In retail trade comparable figures are observed: 2.8% for the entire EU, 2.7% for the EU15 and 6% for the new Member States. In most countries the value added from wholesale trade was somewhat larger than or equalled the value added from retail trade. Except in France and United Kingdom, where the value added from the retail trade was larger than from the wholesale trade.

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<sup>6</sup> The EU15, or the old Member States, comprises the following countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and United Kingdom. In 2004, the EU was expanded with the following 10 countries: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia. In 2007, another two countries joined the EU: Bulgaria and Romania. This brings the total number of EU member countries to 27 at present. The latter two expansions have not been fully captured by the statistics on value added yet. Of the new Member States only seven (EU7) have been covered here, namely: Czech Republic, Estonia, Hungary, Lithuania, Poland, Slovenia and Slovakia. EU22 combines EU15 and EU7.

**Table 3.5 Value added distribution and trade (NACE 50+ 51+ 52), 1995-2006**

	<i>Distribution and Trade</i>				<i>Overall economy</i>			
	2006	95-00	00-06	95-06	2006	95-00	00-06	95-06
		%	%	%		%	%	%
EU	1 352 014	3.3	2.8	3.0	11 468 970	2.8	2.0	2.3
EU 15	1 257 132	3.1	2.6	2.8	10 883 245	2.8	1.9	2.3
NMS	94 882	5.4	5.4	5.4	585 725	2.7	3.7	3.2
Winning	395 349	4.1	4.8	4.5	2 944 076	3.4	2.5	2.9
Losing								
momentum	122 987	2.3	2.0	2.1	944 046	3.0	2.1	2.5
Upcoming	60 894	3.7	4.6	4.2	573 521	3.0	3.1	3.1
Retreating	769 599	3.0	1.9	2.4	6 973 474	2.5	1.6	2.0
Definition	Value added	Annual average growth			GDP	Annual average growth		
	Million euro	1995-	2000-	1995-	Million euro	1995-	2000-	1995-
	2006	2000	2006	2006	2006	2000	2006	2006
	Concentration > 100				Concentration < 100			
Growth	<b>Winning:</b> Netherlands, United Kingdom, Czech Republic, Estonia, Lithuania, Poland, Slovenia, Slovakia				<b>Upcoming:</b> Austria, Finland, Sweden, Hungary			
Decline	<b>Losing momentum:</b> Belgium, Greece, Portugal				<b>Retreating:</b> France, Germany, Italy, Denmark, Ireland, Spain			

Source: Eurostat/TNO

**Table 3.6 Value added wholesale trade, 1995-2006**

	Value added		Share in country		Share in EU	
	Level	Change	Level	Change	Level	Change
EU	578 386	3.2	5.0	0.4	100	0
EU 15	535 465	3.1	4.8	0.4	93	-1
NMS	42 921	5.7	7.2	1.4	7	1
Winning	174 894	4.3	6.4	1.2	30	2
Losing	63 554	1.8	6.6	-0.2	11	-2
Upcoming	147 826	4.8	4.6	0.8	25	3
Retreating	190540	1.8	4.4	-0.1	34	-4
Definition	Value added	Annual	Share in	Total change	Share in value	Total change
	million euro	average	national GDP	in share	added sector	in share
	2006	growth	2006	1995-2006	EU	1995-2006
		1995-2006			2006	
	Concentration > 100			Concentration < 100		
Growth	<b>Winning:</b> Italy, Netherlands, Finland, Czech Republic, Estonia, Lithuania, Slovakia			<b>Upcoming:</b> France, Greece, Spain, Hungary		
Decline	<b>Losing momentum:</b> Belgium, Austria, Denmark, Portugal, Slovakia			<b>Retreating:</b> Germany, Ireland, United Kingdom		

Source: Eurostat/TNO



**Table 3.7 Value added retail trade, 1995-2006**

	Value added		Share in country		Share in EU	
	Level	Change	Level	Change	Level	Change
EU	534 457	2.8	4.6	0.2	100	0
EU 15	497 023	2.7	4.5	0.2	93	-2
NMS	37 433	6.0	6.3	1.4	7	2
Winner	246 392	4.3	5.5	0.8	45	5
Losing	47 893	2.4	4.8	-0.6	9	0
Upcoming	136 125	2.8	4.2	0.3	26	0
Retreating	102 970	0.3	4.1	-0.5	20	-5
Definition	Value added million euro	Annual average growth	Share in national GDP	Total change in share	Share in value added sector EU	Total change in share
	2006	1995-2006	2006	1995-2006	2006	1995-2006
Growth	Concentration > 100 <b>Winning:</b> France, Greece, United Kingdom, Czech Republic, Estonia, Poland, Slovakia			Concentration < 100 <b>Upcoming:</b> Spain, Lithuania		
Decline	<b>Losing momentum:</b> Germany, Netherlands, Ireland, Portugal, Slovenia			<b>Retreating:</b> Belgium, Austria, Germany, Finland, Hungary		

Source: Eurostat/TNO

In the United States the distribution and trade sector realised a value added of US\$ 1,610 billion, which accounted for 12.2% of the national GDP in 2006. This was slightly higher than in Europe<sup>7</sup>. Contrary to Europe, the retail sector contributed more to the overall sector's value added than the wholesale sector. Wholesale had a share of 47.3%, while retail had a share of 52.7% (US Department of Commerce, Bureau of Economic Analysis<sup>8</sup>). In Japan the sector's value added was ¥ 68,722 billion, which accounted for 13.5% of the national GDP in 2006<sup>9</sup>. The wholesale sector had a substantially bigger share in the sector's value added than the retail sector. Wholesale had a share of 67.7%, while retail had a share of 32.3% (Cabinet Office, National Accounts for 2006<sup>10</sup>).

### 3.2 Employment structure and work organisation

#### Number of enterprises

In 2004, there were approximately 6 million enterprises (5.9 million according to EMCC, 2007 and 6.2 million according to Eurostat, 2007) in the commerce sector in the EU25 (no data for Luxembourg and Malta). Retail trade was the biggest sub-sector with approximately 60%, while wholesale trade had a share of 27% of the enterprises, and motor vehicle trade had a share of 13%. Among EU15 Member States, the retail trade had the largest share of enterprises in Spain, Greece, Germany, France and Portugal (between 62 and 66%), while its relevance was a bit less in Sweden and Finland (47% and 48% respectively). Among the new

<sup>7</sup> The data in the national accounts on 'Wholesale' and 'Retail' are added up to define the value added of the distribution and trade sector.

<sup>8</sup> [http://www.bea.gov/industry/gpotables/gpo\\_action.cfm?anon=70360&table\\_id=22072&format\\_type=0](http://www.bea.gov/industry/gpotables/gpo_action.cfm?anon=70360&table_id=22072&format_type=0)

<sup>9</sup> The data in the national accounts on 'Wholesale' and 'Retail' are added up to define the value added of the distribution and trade sector.

<sup>10</sup> <http://www.esri.cao.go.jp/en/sna/h18-kaku/20annual-report-e.html>

Member States, retail trade was most important in Bulgaria and Cyprus (75% and 71% respectively), but in Slovenia and Slovakia the wholesale trade sector was more important (51% and 60% respectively). Overall in Europe, the trade of motor vehicles had the lowest shares of enterprises, but in Finland and Ireland about 20% of the enterprises in commerce were active in trade of motor vehicles (EMCC, 2007).

In the United States, there were 3.3 million firms in the commerce sector in 2005.<sup>11</sup> About 80% of these enterprises were active in the retail sector. The number of firms also includes non-employers; i.e. business with no paid employment and payroll. In 2005, about two-third of the businesses in the commerce sector were non-employers (self-employed individuals). Especially in the retail sector most companies have no paid employees; 72% of the retail businesses are non-employers (US Census Bureau<sup>12</sup>). In Japan, there were 1.6 million establishments in the commerce sector in 2004, of which 76.7% were active in retail.<sup>13</sup>

### Size of enterprises

In 2005, most of the enterprises in commerce in EU25 were small firms; 99.3% of the firms had less than 50 employees (Table 3.8). Only 0.6% is medium-sized firms and 0.1% of the firms are large firms with more than 250 employees. Especially in Greece, Spain, Italy, and Portugal, most firms have less than 10 employees (Table 3.9). EU15 countries with a relatively high percentage of firms in commerce with 10 employees or more are Germany, Denmark, Ireland, the United Kingdom, Austria, and the Netherlands (between 10% and 16%) and then mainly between 10 and 20 employees. Among the new Member States, the Czech Republic had the largest share of 1 employee firms (70%), while also Poland, Hungary, Cyprus, Bulgaria, and Slovenia had large numbers of small firms with less than 10 employees. Slovakia, Lithuania, Latvia and Estonia had more than average enterprises with more than 10 employees (EMCC, 2007).

In countries with a high growth in employment the share of small firms is decreasing, while in countries with low employment growth this share of small firms is rising somewhat.

**Table 3.8 Firms distribution and trade by employment size, 2005**

	Share of firms with employees in the range		
	<50	50-249	>250
EU	99.3	0.6	0.1
EU15	99.2	0.7	0.1
NMS	99.3	0.6	0.1
Winning	99.2	0.6	0.1
Losing momentum	99.3	0.6	0.1
Upcoming	99.3	0.6	0.1
Retreating	98.9	1.0	0.1

Source: Eurostat/TNO \* employers and employees. Country groupings are based on employment (Table 3.2)

<sup>11</sup> Data on the number of enterprises includes data on the wholesale and retail sector.

<sup>12</sup> <http://www.census.gov/csd/susb/susb05.htm>

<sup>13</sup> Data on the number of enterprises includes data on the wholesale and retail sector.

**Table 3.9 Firms distribution and trade with less than 50 employees, 2004**

	Company size (% of total)			
	1 employee	Between 2 and 9 employees	Between 10 and 19 employees	Between 20 and 49 employees
EU25	52%	42%	4%	2%
Austria	33%	55%	7%	3%
Belgium	56%	37%	4%	2%
Bulgaria	50%	45%	4%	2%
Cyprus	57%	39%	3%	1%
Czech Republic	70%	26%	3%	1%
Denmark	44%	41%	9%	5%
Estonia	36%	51%	8%	4%
Finland	68%	25%	4%	1%
France	61%	33%	3%	2%
Germany	23%	62%	10%	4%
Greece	40%	58%	2%	4%
Hungary	58%	37%	3%	2%
Ireland	24%	61%	9%	1%
Italy	60%	37%	2%	1%
Latvia	27%	58%	9%	4%
Lithuania	21%	60%	11%	5%
Luxembourg	-			
Malta	-			
Netherlands	37%	53%	6%	3%
Poland	59%	38%	1%	1%
Portugal	63%	32%	3%	1%
Romania	54%	38%	5%	2%
Slovak Republic	32%	48%	14%	3%
Slovenia	58%	36%	3%	2%
Spain	51%	44%	3%	1%
Sweden	70%	25%	3%	2%
United Kingdom	31%	56%	8%	3%

Source: EMCC, 2007

Most of the enterprises in wholesale and retail trade in the United States and Japan are small firms like in Europe, although the percentage of wholesale and retail firms with 10 or more employees in these two countries is considerably higher than in the EU25 (7%) or EU15 (7.9%). In the USA, 73% of the wholesale firms with employees had less than 10 employees, of which the majority had less than 5 employees. Almost 80% of the retail firms with employees had less than 10 employees, of which three-quarters had less than 5 employees (US Census Bureau<sup>14</sup>). In Japan, approximately 75% of the wholesale firms had less than 10 employees, of which half had less than 5 employees. About 85% of the Japanese retail firms had less than 10 employees, of which half had 2 or less employees (Ministry of Economy, Trade & Industry, Census of Commerce<sup>15</sup>).

### Employment by size of enterprise

In 2005, 60% of the commerce jobs in EU22 were in small firms (with less than 50 employees), followed by the large firms (more than 250 employees) with 27.8%, and the medium sized firms (between 50 and 250 employees) with 12.1%. Especially in Italy,

<sup>14</sup> <http://www.census.gov/csd/susb/susb05.htm>

<sup>15</sup> <http://www.meti.go.jp/english/statistics/tyo/syougyo/index.html>

Greece, Portugal and Spain, most commerce jobs were in small firms (between 71.5 and 82.1%). On the other hand, in the United Kingdom, most of the jobs were in large firms (54.1%) and also in Finland, Germany, Austria, Denmark, the Netherlands, and France a substantial part of the sector's employment is based in large firms (between 29 and 39%). In the new Member States, the share of the small firms was very large with 71.2% of the total commerce jobs. Especially in Bulgaria and Cyprus small firms were important (82.9% and 76.5% respectively), while the share of small firms in Slovenia (57.5%) is more comparable to the EU15 shares. While medium-sized firms were the least relevant in EU15, among new Member States medium-sized firms are equally or more important than large firms. Among the EU22 countries, the relative importance of small firms in terms of employment declined with 2.3%, while that of large firms increased with 2.4%, and that of medium-sized firms remained stable between 1999 and 2005. Only in the new Member States, the relative importance of medium-sized firms declined with 1.3%.

### Education

Employment in distribution and trade is dominated by mid educated workers (Table 3.10). This is even higher in the new Member States, where only 6% of employment consists of low educated workers. In both new and old Member States a decrease is visible in low educated workers, while in most cases the share of mid and high educated workers increased. The share of high educated workers is substantially lower (11 percent points) than for the whole economy in the EU 15.

### Gender, full-time employment and age

The sector is characterised by a rather even share of male and female employees in the whole sector. More than half of the employees are younger than 40 years (Table 3.10). Nevertheless, the workforce is ageing, which is visible in the decreasing share of workers younger than 40 and in the increasing share of workers above 50 years. This could lead in future years to problems when an increasing share of very experienced workers is leaving the sector.

**Table 3.10 Employment by gender, age and education: distribution and trade, 2000-2006**

	EU		EU 15		NMS	
	Level	Change	Level	Change	Level	Change
Women	49	1	47	1	54	0
Age < 40	56	-2	54	-3	61	0
Age 40 – 50	24	1	24	2	23	-4
Age > 50	20	1	21	1	16	4
Low education	28	-6	33	-5	6	-3
Mid education	57	4	52	2	79	2
High education	15	2	15	2	15	1
Definition	Level %	Total	Level %	Total	Level %	Total
	2006	change %	2006	change %	2006	change %
		2000-2006		2000-2006		2000-2006

Source: Alphametrics/Eurostat/TNO

### Employment in wholesale trade

In 2005, of all people employed in wholesale trade about 86% were employees and 14% were entrepreneurs (Table 3.11). Part-time jobs had an average share of 10% in EU22. This share of part-time employment has decreased in countries with the strongest growth in employment, but has increased in countries that were Losing momentum. Approximately

80% of the people were employed in EU15 countries, with the largest number of jobs in the United Kingdom, Germany, Spain, Italy, and France. Among the new Member States, most people in the wholesale trade sector were employed in Poland, followed at substantial distance by Romania, Czech Republic, and Hungary.

In Italy, Greece, and Malta, relatively a large number of people was employed as an entrepreneur (between 30 and 45%), while in most other countries more than 80% was working as an employee. Part-time jobs were especially relevant in Sweden, Germany, and the Netherlands (between 20 and 24%), but not relevant at all in Poland, Slovakia, Portugal, Cyprus, Finland, Romania and Slovenia (3% or less).

**Table 3.11 Share of employees, entrepreneurs, and part-time employed in wholesale trade, 2005**

	<b>Total employed (2005)</b>	<b>Share group in total employed</b>	<b>Share of employees in total employed</b>	<b>Share of entrepreneurs in total employed</b>	<b>Share of part/time in total employed</b>
EU	9 723 537	100	86	14	10
EU15	7 810 095	80	86	14	12
NMS	1 913 442	20	86	14	3
Winning	4 564 777	47	80	20	6
Losing momentum	960 030	10	84	16	14
Upcoming	2 915 019	30	94	6	15
Retreating	1 253 624	13	93	7	13

Source: Eurostat/TNO. Country groupings are based on employment (Table 3.3)

In 2006, men represented two-thirds of the workforce, which is in line with the gender breakdown of the non-financial business economy as a whole. More than half (56.7%) of the persons employed were aged between 30 and 49, 22.6% were between 15 and 29, and 20.8% were persons of 50 years or older (Eurostat, 2007a).

### **Employment in the retail trade**

In 2005, of those employed in retail, 79% were working as employees and 21% were entrepreneurs (Table 3.12). Approximately 30% worked in a part-time job. Part-time employment is far more abundant in countries with high employment growth. Almost 82% of the jobs were in the EU15 Member States. Most jobs can be found in the United Kingdom and Germany, followed by Italy, Spain, and France. Among the new Member States, most people were employed in Poland, followed at great distance by Romania, Czech Republic, Hungary, and Bulgaria.

Half of the people employed in this sector in Italy, Greece, and Malta were entrepreneurs, while also in Poland, Czech Republic, Bulgaria, and Spain a substantial number of people were employed as entrepreneurs (between 30 and 40%). In Slovakia, Latvia, Estonia, Romania, Portugal, United Kingdom, Finland, Slovenia, France, and Ireland more than 90% of the people are working as employees. Part-time work is especially important in the United Kingdom (52%), Germany (45%), the Netherlands (40%), and Ireland (42%), but in Italy

only 9% of the jobs in the retail sector is part-time. Part-time employment is also not relevant at all in Portugal, Slovenia, and Romania (4% and less).

**Table 3.12 Share of employees, entrepreneurs, and part-time employed in retail trade, 2005**

	Total employed (2005)	Share group in total employed	Share of employees in total employed	Share of entrepreneurs in total employed	Share of part/time in total employed
EU	17 138 537	100	79	21	31
EU15	14 021 857	82	81	19	36
NMS	3 116 680	18	72	28	6
Winning	7 501 121	44	82	18	32
Losing momentum	505 757	3	47	53	9
Upcoming	8 545 232	50	78	22	32
Retreating	539 167	3	93	7	4

Source: Eurostat/TNO. Country groupings are based on employment (Table 3.4)

Contrary to the wholesale sub-sector, the retail sub-sector had a relatively high proportion of women employed (61.7% in 2006). The relatively high share of female and part-time employees has also effects in the earnings; women working in the retail sub-sector earn, on average, 25% less an hour than men do (EMCC, 2007). The share of part-time employment in retail differs in the various countries. Factors that could influence the share of part-time employment by women include the country's child care system, but also the availability of full-time jobs instead of flexible part-time jobs. The retail sub-sector has a relatively high number of young people employed; a little more than 30% of the workforce was aged between 15 and 29. Approximately half of the employees were aged between 30 and 49 and a fifth was 50 years or older (Eurostat, 2007a). The pool of young (and therefore cheap) people is diminishing as the population is ageing and young people increasingly enter higher education. Hence, retailers are shifting their recruitment strategies to mature workers and are introducing training packages and flexibility (EMCC, 2007).

### Wages

Retail can also be characterised as a low-pay sector (Lehndorff, 1999; Eurofoundation, 2004). A comparative study by Eurofoundation (2004), based on the European Industrial Relations Observatory, compares the wages between manufacturing and distributive trade (retail, wholesale and repair, with retail the main contributor to employment). In most countries, monthly wages in distributive trade are substantially lower than in manufacturing, ranging from 26% less in Bulgaria to 15% less in France and 4% less in Belgium. Only in Slovakia, Norway, and Slovenia wages in distributive trade were higher than in manufacturing. Also if corrected for part-time work, Spanish employees in distributive trade earn 20% less than in manufacturing, 10% less in the UK, and 9% less in Sweden.

There is also a substantial monthly pay gap between men and women in the retail sector. This monthly pay gap between men and women is the biggest in Austria, with women earning 34% less than men, followed by France (30% less), the Netherlands (29% less), Finland (28%

less), and Bulgaria (24% less). An important factor here is the relatively high share of part-time employment by female retail workers. However, even when the figure are adjusted for part-time work, women in the UK still earn 25% less than men; in Denmark this amounts to 23% less (Eurofoundation, 2004).

### **Wages, personnel costs and flexibility in retail trade**

A long-term development in retail is the focus on personnel costs. Bringing down the personnel costs has been and still is for many retailers the main road to improving their profit margin. Retailer Wal-Mart is world-champion in pushing for higher efficiency and lower costs and this affects the contract conditions, the wages, and fringe benefits (Interview with Gary Gereffi, PBS Frontline, 9 September 2004). Research in the German self-service department stores showed that total costs increased faster than total sales between 1975 and 1995. The main strategy in the same period to bring down the costs was reducing personnel costs: the share of personnel costs in total costs decreased from 47% in 1975 to 38% in 1995 (Lehndorff, 1999). Two main methods to decrease the personnel costs are introducing new technologies in handling goods and demand-driven workforce management. Retailers will use customer demand data to define when and where the workforce will be brought into action (EMCC, 2007). This rationalised personnel planning is also characterised as 'fragmentation of employment and working-time' (Lehndorff, 1999) and leads to increased labour flexibility.

There are several ways to increase labour flexibility. First, full-time positions can be replaced with part-time ones with a range of different working times. Second, different work schedules can be introduced, including shift work and overlapping working times. Third, the duration and scheduling of individual working time can be varied over time. Fourth, seasonal staff can be hired for example during holidays or before Christmas. Finally, fixed-term employment relationships can be added to the core workforce to address foreseeable peaks of activity. An extreme example of labour flexibility is availability on call, which includes zero hour contracts for employees who can be called at any time to come to work. Nevertheless, this extreme type of labour flexibility can have many disadvantages including less attractive working environment and conditions for employees and a weakened internal cohesion of the workforce. This might lead to less motivated staff, poor service quality, unsatisfied customers, decreased sales and profits, which will start the process of cutting personnel costs again (also known as the cycle of failure in services) (Lehndorff, 1999). Opposite to this passive, numerical labour flexibility is the active, functional labour flexibility. In this case, employees can perform various tasks (e.g., sales advice, cashier, and stock management) and they can switch between activities in accordance with customer flows. According to Lehndorff (1999), retailers increasingly combine the two types of labour flexibility (numerical and functional), although it depends on the type of retail format. It is also expected that there will be a further distinction between functions, mainly because some functions will be organised centrally and some will be executed in different positions in the supply chain. The multi-channel strategy will result in more work in maintaining customer contacts and building up customer relations via Internet, e-mail and phone. This type of activities could also be outsourced to specialised companies, even abroad (HBD, 2004).

The European Commission acknowledges the need for more flexibility, but finds appropriate levels of security to employees important as well. A new concept is introduced 'flexicurity', which allows higher labour market flexibility but in combination with employment security, that is high unemployment benefits and an obligation and right of the unemployed to training (EuroCommerce Annual Report 2007 / Action Plan 2008).

### **Organisation of work in the commerce sector**

Arundel et al. (2006) studied the organisation of work in several sectors in Europe, including the wholesale and retail trade sector. The study showed that 41.5% of the employees in the wholesale and retail trade sector work in a 'discretionary learning' work organisation. This is a little bit higher than average (39.1%) for all sectors. Discretionary learning combines high levels of autonomy in work with high levels of learning, problem-solving and task complexity. It refers to jobs with a lot of responsibility to solve problems. For approximately a quarter (26.4%) of the employees in the commerce sector their work is organised as in a 'traditional organisation', which is substantially above average for all sectors (19.1%). This type of work organisation knows few constraints on the work rate, has an average level of monotony in work, and learning and task complexity are less important. It includes traditional service jobs with direct and indirect interaction with customers. About 20% of the employees work in a 'lean production', which is also above average for all sectors (13.6%). Lean production knows low levels of employee discretion in setting work pace and methods, work effort is constrained by quantitative production norms and quality norms, job rotation and team work are very important as well, especially to create active participation of employees.

Only 11.7% of the employees in the wholesale and retail trade sector are active in Taylorist organisations of work, which is also below average (13.6%). Taylorist organisations can be characterised as with low levels of discretion, learning and problem-solving. The work is highly constrained and monotonous and requires low skills. According to Arundel et al (2006), the diffusion of organisational practices differs across European countries as well. Especially in Sweden, the Netherlands and Denmark discretionary learning is extensively used. The lean production model is leading in the UK, Ireland, Spain, followed by France and Finland. Tayloristic organisation forms are especially present in Greece, while traditional organisation forms are only relevant to some extent in Greece and Italy. Employment- main trends by job function

### **3.3 Employment-main trends by job function**

One of the most interesting indicators for analysing the future on jobs and skills is the trends and developments that can be identified at the (micro) level of job functions. More than aggregate employment and more than figures about gender and age distribution can changes in job functions tell us something about ongoing change and restructuring in the sector. Changes in (the need for) competences and changes in the distribution of job functions are closely linked to each other, both at the level of the sector and at the level of the firm. Competences are combined in occupation profiles, and can be distinguished in core competences, specialization competences or complementary competences (Rodrigues, 2007:34). Another distinction is between theoretical, technical and social competences (i.e. knowledge, skills and competences in ECVET) (ibidem). Identifying the changes in job functions by sector is a first step towards a better understanding of the changing competence needs in the sector. Competences for the purpose of this study are assumed to be located in a general grid defined by the main occupation functions: general management, marketing, financial and administrative management, R&D, logistics, production management, production, quality and maintenance (Rodrigues, 2007:35).

As a first step towards identifying trends in competences, the observed changes in the distribution of job functions over time will be analysed, using Labour Force Survey (LFS)



data.<sup>16</sup> In parts II and III, a further elaboration of these changes on the need for new and existing competences will be provided. The analysis starts with an analysis of the state-of-play, i.e. the situation as per 2006. Subsequently, changes in job functions over time are discussed, in general (overall) and for different categories of workers classified according to educational level.

### **Main occupations: state-of-play and recent developments**

This sub-section discusses the main trends in job function categories (occupations) in the distribution and trade sector. The analysis is based on a combination of labour force survey (LFS) data and general employment data collected by Eurostat. Due to the nature of survey data – being based on restricted samples of the total employment population – data reported at the most aggregate (EU) level is more reliable than the same information provided at Member State level if the focus is directed at sector or sub-sector level (see the separate data annex of this report). The same applies to the combination of occupation data and educational profiles. Figures therefore should be interpreted with caution, indicating primarily directions of change and less reliable where it comes to the magnitude of change.

In 2006, 33% of all employees in the European commerce sector (EU25) was a service worker, while 13% was a clerk, and 11% was a manager of an SME (Tables 3.13 and 3.14). In new Member States the share of service workers reached 47%. The share of service workers was the largest in Poland, Romania, Bulgaria and Hungary (between 48 and 51%) and the lowest in France, Germany and Italy (between 22 and 25%). Especially in Greece and Italy there were relatively large numbers of managers of SMEs (29% and 21% respectively). The share of service workers in the total employment in the sector is the highest in all countries. However, the shares of the other occupations differ among the various groups of countries. In the winning countries, clerks and managers of SMEs (both 11%) are the second largest occupation group, followed by elementary occupations (8%), other managers and business professionals (both 7%). In the countries losing momentum, the service workers are followed by managers of SMEs (18%) clerks (13%) and elementary occupations (10%). In the upcoming countries, clerks (13%) are the second largest occupation category, followed by managers of SMEs (10%), business professionals (9%) and other professionals (8%). In the group of retreating countries clerks and business professionals share the second position (14 and 13% respectively), followed by managers SMEs (8%), while this category has a much smaller share than in the other groups of countries.

In the period 2000-2006, there were only small changes in occupation. In general, in the old Member States, the number of managers, professional technicians, and elementary occupations were increasing a bit, while the number of clerks and service workers were decreasing a little. In the new Member States, the number of managers, professional technicians, craft trade workers, and elementary occupations were slightly decreasing, while the number of clerks, service workers, mechanics, business professionals, drivers, and mobile plant operations were increasing a bit (see Table 3.15).

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<sup>16</sup> Data on occupational structure follow the availability of overall employment figures presented earlier.

**Table 3.13 Employment level by occupation distribution and trade sector, 2006**

	<b>EU 15</b>	<b>NMS</b>	<b>EU</b>	<b>Winning</b>	<b>Losing momentum</b>	<b>Upcoming</b>	<b>Retreating</b>
<b>TOTAL</b>	<b>26 879</b>	<b>6 461</b>	<b>33 340</b>	<b>10 788</b>	<b>2 181</b>	<b>20 226</b>	<b>144</b>
Managers of SMEs	3 241	443	3 685	1 155	384	2 122	12
Other specialist managers	1 425	283	1 708	766	69	925	5
Health professionals	629	101	730	181	43	491	2
Business professionals	2 294	422	2 716	753	68	1 821	18
Other professionals and technicians	1 823	489	2 312	426	121	1 715	8
Clerks	3 619	588	4 207	1 236	290	2 627	20
Service workers	7 944	3 022	10 966	3 855	715	6 449	53
Mechanics and fitters	1 423	309	1 732	501	108	1 103	5
Craft and related trades workers	1 590	246	1 836	544	99	1 163	8
Motor vehicle drivers. /mobile plant operators.	744	257	1 001	397	50	562	4
Other operators	318	46	364	121	16	227	1
Elementary occupations	1 829	254	2 083	852	218	1 022	6

**Table 3.14 Occupational shares distribution and trade, 2006**

	<b>EU 15</b>	<b>NMS</b>	<b>EU</b>	<b>Winning</b>	<b>Losing momentum</b>	<b>Upcoming</b>	<b>Retreating</b>
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Managers of SMEs	12	7	11	11	18	10	8
Other specialist managers	5	4	5	7	3	5	3
Health professionals	2	2	2	2	2	2	2
Business professionals	9	7	8	7	3	9	13
Other professionals and technicians	7	8	7	4	6	8	6
Clerks	13	9	13	11	13	13	14
Service workers	30	47	33	36	33	32	37
Mechanics and fitters	5	5	5	5	5	5	4
Craft and related trade workers	6	4	6	5	5	6	5
Motor vehicle drivers /mobile plant operators	3	4	3	4	2	3	3
Other operators	1	1	1	1	1	1	1
Elementary occupations	7	4	6	8	10	5	4

**Table 3.15 Occupation share changes distribution and trade, 2000-2006**

	EU 15	NMS	EU	Winning	Losing momentum	Upcoming	Retreating
Managers of SMEs	3	1	2	-1	-2	4	1
Other specialist managers	-1	-2	-1	-2	-1	0	0
Health professionals	1	1	1	0	1	1	0
Business professionals	1	2	1	2	0	0	4
Other professionals and technicians	2	-1	1	1	0	1	1
Clerks	-1	1	-1	-3	0	-1	-2
Service workers	-3	1	-2	1	2	-3	-1
Mechanics and fitters	-1	1	0	-1	0	0	-2
Craft and related trades workers	-1	-2	-1	-1	-1	-2	0
Motor vehicle drivers /mobile plant operators.	0	1	0	0	-1	0	-1
Other operators	0	-1	0	0	0	0	-1
Elementary occupations	1	-1	1	3	2	0	1

In EU22, 57% of the people employed had a medium education level (ISCED level 3+4) in 2006. In EU15 this share amounted to 52%, while in the new Member States 79% of the employees had this education level. Employees with a low education level (ISCED level 1+2) can mainly be found in the old Member States and especially in Portugal (72%) followed by Spain, Italy, and the Netherlands (39 to 45%). Employees with a high level of education (ISCED level 5+6) can mainly be found in Estonia, Lithuania and Finland (around 30%), while the average share of high educated employees in the commerce sector was 15% (EU22).

Almost all occupations in the distribution and trade sector show a negative trend for low educated workers (see Table 3.16). The total share of low educated workers in the sector decreased with 5%. In the EU, especially low educated motor vehicle drivers / mobile plant operators and other operators lost share (11%). Both the craft and related trades workers and the other professional technicians remained stable, while the health professionals increased their share with 1%.

There are some important differences between the old Member States and the new Member States. The low educated other operators lost substantial ground in the old Member States (-27%), while they could increase their share in the new Member States (1%). Low educated mechanics and fitters could stabilise their share in the new Member States, but lost 6% in the EU15. In general, the low educated workers in the new Member States lost less than their counterparts in the old Member States.

There are also striking differences between the various groups of countries. In general the low educated workers lost 6 to 7% in the winning and upcoming countries, while in the countries losing moment this loss was limited to 3% and in the retreating countries the low educated workers could stabilise their position. More specific, the low educated other operators lost 20% in the retreating countries, but gained 3% in the upcoming countries and the countries losing momentum. Low educated elementary occupations lost 14% in the winning countries, but could limit this decline to 2% in the retreating countries. The low educated mechanics and fitters lost 11% in the upcoming countries and 5% in the winning

countries, but gained 6% in the countries losing momentum. The low educated service workers also lost substantial in the upcoming countries (12%) and winning countries (8%), but this decline was much lower in the countries losing momentum and the retreating countries. Low educated clerks lost share, except in the retreating countries where they gained 6%.

**Table 3.16 Occupation share changes distribution and trade, 2000-2006: low educated**

	EU 15	NMS	EU	Winning	Losing momentum	Upcoming	Retreating
Managers of SMEs	-2	-2	-3	-8	-4	4	4
Other managers	-5	-4	-5	-7	0	-4	0
Health professionals	1	0	1	-2	1	1	0
Business professionals	-2	0	-3	-6	0	-4	0
Other professionals and technicians	0	-1	0	-3	-7	1	1
Clerks	-4	-3	-4	-7	-4	-3	6
Service workers	-6	-3	-7	-8	-3	-12	-2
Mechanics and fitters	-6	0	-7	-5	6	-11	-4
Craft and related trades workers	-1	-3	0	-1	-1	-3	1
Motor vehicle drivers /mobile plant operators	-8	-9	-11	-12	-9	-13	8
Other operators	-27	1	-11	-9	3	3	-20
Elementary occupations	-7	-7	-6	-14	-8	-4	-2
<b>TOTAL</b>	<b>-5</b>	<b>-3</b>	<b>-5</b>	<b>-7</b>	<b>-3</b>	<b>-6</b>	<b>0</b>

The overall employment occupation share of the EU for middle educated workers in the distribution and trade sector increased by 3% between 2000 and 2006 (see Table 3.17). In the old Member States this increase was 2% and in the new Member States middle educated workers increased their share with 1%. Only the category of other managers lost (2%) in the EU. The biggest increase was shown by middle educated motor vehicle divers and mobile plant operators (11%), followed by other operators (9%), mechanics and fitters (7%), service workers and elementary occupations (both 5%).

There are some remarkably differences between the old and new Member States. In the old Member States, the middle educated other operators increased their share substantially with 25%, while in the new Member States this occupation category lost 3%. The middle educated business professionals lost 8% in the new Member States, but increased their share 1% in the EU15. Also for the categories other professional technicians, service workers, and mechanics and fitters the middle educated workers increased their share somewhat stronger in the EU15 than in the old Member States. On the other hand, the share of the middle educated health professionals and managers of SMEs increased stronger in the new Member States (8 and 6% respectively) than in the old Member States (3%). The same holds for the categories craft and related trades workers, motor vehicle drivers and mobile plant operators, as well as elementary occupations.

These differences are even more striking when regarding the different groups of countries. The middle educated workers lost ground especially in the retreating countries, especially in the categories health professionals, other managers, business professionals, other professional technicians and motor vehicle divers and operators. However, the share of other operators

increased substantially with 20%. The middle educated workers increased their share in the winning and upcoming countries (4%), especially in the categories motor vehicle drivers and mobile plant operators, elementary occupations, mechanics and fitters, and health professionals, although the changes in shares differ somewhat between the winning and upcoming countries. The middle educated workers stabilised their position in the countries at risk, although they lost in the categories business professionals, other managers, mechanics and fitters, other operators, as well as other professional technicians.

**Table 3.17 Occupation share changes distribution and trade, 2000-2006: mid educated**

	EU 15	NMS	EU	Winner	At Risk	Upcoming	Retreat
Managers of SMEs	3	6	3	4	0	0	-5
Other specialist managers	-1	-4	-2	2	-10	-2	-17
Health professionals	3	8	4	10	8	3	-19
Business professionals	1	-8	0	4	-12	0	-12
Other professionals and technicians	3	0	1	4	-4	2	-9
Clerks	1	1	2	1	1	2	-6
Service workers	3	1	5	5	1	9	0
Mechanics and fitters	5	1	7	5	-5	11	0
Craft and related trades workers	1	4	1	0	2	4	-1
Motor vehicle drivers /mobile plant operators	7	11	11	11	6	14	-8
Other operators	25	-3	9	7	-4	-3	20
Elementary occupations	6	7	5	13	5	4	4
<b>TOTAL</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>-5</b>

Throughout the EU, the high educated employees increased their share with 2% in 2000-2006. In the new Member States this share increased with 1%, in the EU 15 with 2%. The main increase is shown in the category other managers (7%), while the main decrease was in the category health professionals. The increase in other managers and also in business professionals as well as the decrease in health professionals and in managers SMEs was much stronger in the new Member States than in the EU15.

The increase in the share of high educated workers in the distribution and trade sector was the strongest in the retreating countries (5%) and the lowest in the upcoming countries (2%). This increase in the retreating countries was especially strong for health professionals, other managers, and business professionals. It is striking to see that where health professionals gain a lot in the retreating countries, they really loose ground in the other groups of countries. Another important difference is shown for the category managers of SMEs: they lost 4% in the upcoming countries, but they increased 4% in the winning countries. The countries losing momentum and the retreating countries show a similar growth patters for the categories business professionals, other managers, as well as other professional technicians. Clerks are gaining more in the winning countries than in the other groups of countries; the same holds for the mechanics and fitters in the retreating countries.

**Table 3.18 Occupations share changes distribution and trade, 2000-2006: high educated**

	EU 15	NMS	EU	Winning	Losing momentum	Upcoming	Retreating
Managers of SMEs	0	-4	-1	4	3	-4	1
Other specialist managers	6	8	7	5	10	6	17
Health professionals	-4	-8	-5	-8	-9	-4	19
Business professionals	1	8	3	2	12	3	12
Other professionals and technicians	-2	1	-2	-1	12	-3	8
Clerks	3	2	3	6	3	2	0
Service workers	3	1	3	3	2	3	1
Mechanics and fitters	1	-2	0	0	0	0	4
Craft and related trades workers	-1	-1	0	1	-2	-2	0
Motor vehicle drivers /mobile plant operators	1	-1	0	1	2	0	0
Other operators	2	3	2	2	1	0	0
Elementary occupations	1	0	1	2	3	0	-2
<b>TOTAL</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>5</b>

### 3.4 Productivity and labour costs

The sector wholesale trade and commission trade has a wage adjusted labour productivity of 157.6 %, which is higher than the non-financial business economy average. Four of its sub-sectors also have a wage adjusted labour productivity that is above average: agricultural wholesaling (150.0 %), wholesale of consumer goods (157.8 %), other wholesale (180.5 %) and wholesale of intermediate goods (184.1 %). The wage adjusted labour productivity ratios of the sub-sectors wholesale of machinery and equipment and wholesale on a fee or contract basis were below the non-financial business economy average being 140.0 % and 142.0 %, respectively.

The wage adjusted labour productivity of the sector retail trade and repair of personal and household goods was 129.0 % in 2004. Of the different subsectors, the subsector retailing not in stores had the lowest wage adjusted labour productivity (96.1 %). None of the subsectors has a wage adjusted labour productivity that equals or exceeds the non-financial business economy average, as the highest ratio is 132.0 % (specialised in-store new goods retailing other than food) (Eurostat, 2007a).

**Table 3.19 Labour productivity and wage adjusted labour productivity, 2004**

<b>Sub-sectors</b>	<b>Apparent labour productivity (1 000 euro)</b>	<b>Average personnel costs (1 000 euro)</b>	<b>Wage adjusted labour productivity (%)</b>
<i>Motor vehicles and motorcycles distribution</i>	38.3	25.8	148.0
Sale of motor vehicles	51.1	29.6	172.6
Maintenance & repair of motor vehicles	24.8	20.7	119.8
Sale of motor vehicle parts & accessories	35.0	25.0	142.0
Sale, maintenance & repair of motorcycles	32.0	24.2	131.0
<i>Wholesale trade and commission trade</i>	48.4	30.7	157.6
Wholesale on a fee or contract basis	41.7	29.4	142.0
Agricultural wholesaling	40.0	27.0	150.0
Wholesale of consumer goods	45.5	28.8	157.8
Wholesale of intermediate goods	55.9	30.4	184.1
Wholesale of machinery and equipment	56.3	40.0	140.0
Other wholesale	35.1	19.4	180.5
<i>Retail trade and repair of personal and household goods</i>	22.6	17.6	129.0
Non-specialised in-store retailing	21.2	16.0	130.0
Specialised in-store food retailing	18.0	13.7	131.5
Specialised in-store new goods retailing other than food	24.0	20.0	132.0
Second-hand goods retailing in stores	17.7	15.5	114.4
Retailing not in stores	20.1	21.0	96.1
Repair of personal & household goods	18.5	17.4	106.2

Source: Eurostat (2007a)

A study by The Conference Board (McGuckin, III et al., 2005) showed that there is a substantial difference in productivity in the commerce sector between Europe and the USA. Labour productivity growth among US retail firms increased from 2.6% between 1980 and 1995 to 7.4% between 1995 and 2002. In Europe these growth rates remain very low, ranging from 0.2% in Belgium to 1.6% in France in the period 1995-2002. The main reason for the strong growth rates in the USA is the fast adoption and integration of new technologies as well as substantial organisational changes. Europe is much slower in this, mainly due to regulatory obstacles, smaller scale, differences in culture and language.

### 3.5 Industrial relations

The retail sector in Europe is characterised by a relatively low trade union density, although there are differences between countries. Belgium and Sweden have a very high trade union density rate of more than 60%, but countries like Cyprus, Spain, Bulgaria, Latvia and Hungary have a trade union density rate below 10% (EMCC, 2007). In addition, there is a close relationship between the union density in general and the one in retail; countries with high union density in general also have a high density in the retail sector. Furthermore, trade union presence is very low in small independent shops and as the retail sector has a relatively large number of SMEs this might be a reason for the low union density as well (Eurofoundation, 2004).

On the side of the employers, there are several employers' organisations, which differ in status and structure (sector specific or not, affiliated to an umbrella organisation, dedicated to SMEs etc). In most countries, employers' organisations are active in collective bargaining. In some countries, like Ireland and the UK, they only give advice and in some other countries

they are not involved at all as the bargaining takes place at the company level. Also, the collective bargaining differs enormously among the European countries. In most countries collective bargaining is performed at the sectoral level, in some countries at the sub-sector level (the Netherlands) or at the regional level (Germany). In Finland, Ireland and Slovenia, collective bargaining takes place at the national intersectoral level. In France, Hungary, Latvia, Cyprus, Malta, and the UK, bargaining takes (mainly) place at the company level, in other countries company level bargaining appears together with sectoral bargaining. In some countries the collective bargaining covers 100% of the retail sector, but in other countries, especially with many company agreements, the coverage is much lower (Eurofoundation, 2004). At European level, there is a strong social dialogue between social partners, including EuroCommerce representing the employers' side and UNI-Europe Commerce, representing the trade unions. The social partners come to many agreements and joint texts, but they have hardly any impact on collective agreements.

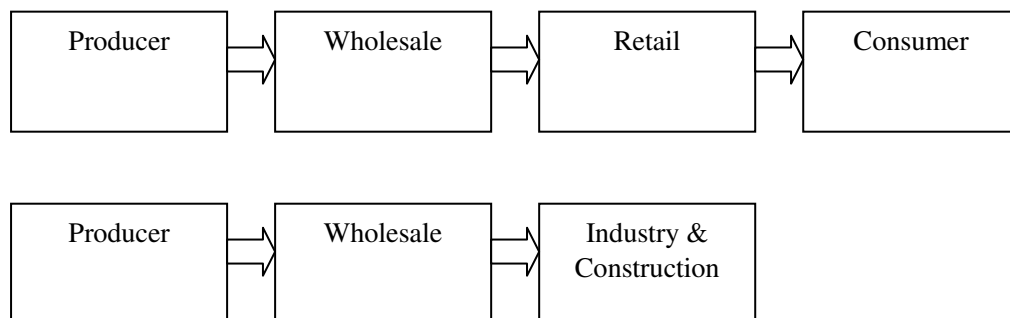
The social dialogue has become more adversarial in several European countries. Conflicts are mainly related to low levels of bargaining coverage, the resistance of large-scale retail multinationals to social dialogue, and the low union representation in SMEs and franchisers. An important issue is the process of deregulation and extension of opening hours. Trade unions are against it, as it only worsens employment conditions without an increase in sales. In most cases compensation for unsocial working hours is negotiated. Another issue is the use of part-time work. Discussions deal with the issues of non-voluntary, part-time work and the flexible use of part-time work by employers. An upcoming topic is gender inequality in retail with a high proportion of female employees, earning less than men for work of equal value and working unsocial working schedules, which makes it difficult to combine work and family and hence to make a career (Eurofoundation, 2004).

## 4 Value chains, networks and actors

### 4.1 Analysis of the value chain

The traditional value chain in the commerce sector made a clear distinction between wholesale and retail (figure 4.1). The retail sector is essentially business-to-consumer (B2C) and the wholesale sector is business-to-business (B2B).

**Figure 4.1 Traditional value chains in the commerce sector**

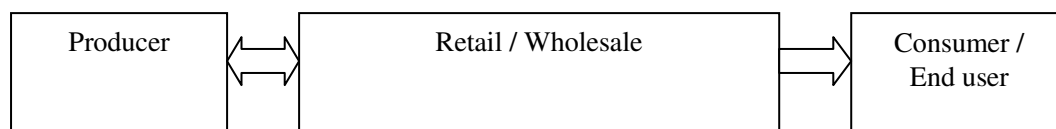




The distribution and trade sector consists of two main functions: retail and wholesale. Wholesale includes the selling of goods to retailers or to industrial, commercial, institutional, and professional users. Wholesalers compete through providing more efficient service or more sophisticated value-added services. Wholesalers can provide a range of services from basic storage and break of bulk, sorting, grading, and logistics to pre- and post-production operations, but also inventory keeping and credit facilities (Eurostat, 2007). The position of the wholesaler in the supply chain depends on the products traded. An importer imports the goods from abroad and sells them to national buyers, while an exporter is specialised in selling products to buyers abroad. Some wholesalers include both import and export. There are also business houses selling broad assortments and focusing on international trade. They often have branches all over the world. The national wholesaler focuses on national trades, while the wholesale dealer is mainly selling to national retailers and large-scale users.

Traditionally, the retailer just sells the goods to the consumer without transformation. Nevertheless, the traditional value chain has changed considerably over the past 20 years. Driven by a continuous search for scale economies and efficiency improvements, retail companies are becoming larger and are increasing their bargain power towards suppliers. The large companies increasingly take over the wholesale function and negotiate directly with the producers. Another development is that retailers introduced retailer brands in addition to national brands, which put them even closer to the function of the producer. Finally, the power of the retailer has increased because of scarcity of shelf-space in relation to the number of new products launched (Cortsjens and Steele, 2008). These developments transformed the commerce sector from a supplier-driven sector into a buyer-driven sector (figure 4.2).

**Figure 4.2 Integration of the wholesale function in the value chain**

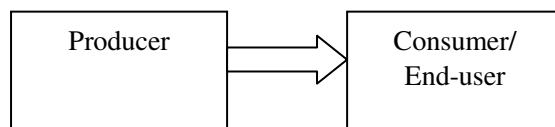


While retailers are integrating the wholesale function, at the same time they are outsourcing the logistics to specialised firms. This vertical integration in combination with the outsourcing of logistics has also changed the asset ownership in the supply chain (Dawson, 2001). Logistics are now conducted by specialist firms or regional distribution centres, sometimes on an exclusive-use basis, sometimes on a shared-use basis. Also the inventory ownership has changed because the inventory is now managed by the vendor.

Although retailers are getting more powerful, the question is if this results in a better performance for these retailers. According to Corstjens and Steele (2008), retailers have not outperformed the manufacturers and they struggle to translate increased bargaining power into improved operating performance (economic profit, sales growth, and profit margin) and shareholder performance (total shareholder return). They studied the performance of the 50 largest publicly quoted retailers and manufacturers in Europe and North America over 10 years. Despite the fact that retailers have more power and despite the fact that more resources are transferred from manufacturers to retailers (trade promotions) and that some of these resources are not passed through to the consumers, retailers have underperformed manufacturers (Corstjens and Steele, 2008). The profit margins of manufacturers are two to three times larger than the margins of retailers (EuroCommerce, 2008b).

The increased vertical integration is also stimulated by e-commerce (see also section 5) and leads to disintermediation in the supply chain. Disintermediation means that intermediaries are eliminated (see figure 4.3). These intermediaries could be wholesalers, but also retailers. Especially because of Internet, the role of retailers could become non-essential and producers could directly link to consumers (Harrison and Waite, 2006; Sampson and Fawcett, 2001; Giaglis et al., 1999). For example, authors of books and musicians could sell their books and music directly to the consumers, without using a publisher or music company. Another example comes from Dell Computer, which is selling computers directly to consumers. Disintermediation can lead to higher profit margins for the producers and lower prices for the consumers (Giaglis et al., 1999).

**Figure 4.3 Disintermediation in the value chain**



Manufacturers could search for better and more direct relationships with the end consumers and cross over into the retail arena, for example through creating brand-related experiences, such as M&M-shops or Disney stores (PWC, 2007).

There is also a reverse trend of reintermediation, adding new elements to the supply chain (Harrison and Waite, 2006; Sampson and Fawcett, 2001; Giaglis et al., 1999). This could include displacing a traditional actor in the supply chain, like Amazon replacing traditional bookstores, but it could also be completely new actors, like so-called aggregators or infomediaries, which are websites providing consumers with information from a number of suppliers and offer feature and price comparisons. Another example is the on-line auction, which auctions almost everything from computers to airplane tickets. According to Giaglis et al. (1999) these new types of electronic markets could also be called cybermediaries.

### **Production and value networks**

In order to optimise the value chain and to deal with the fierce competition both retailers and wholesale want to increase their economies of scale and bargaining power. Hence, they are searching for collaboration and building key relationships with other economic actors. Manufacturers will search for more direct relationships with their consumers through the creation of brand-related experiences (Nike stores, Disney stores), but they will also initiate co-branding. Co-branding are partnerships between for example H&M and Marimekko or Karl Lagerfeld or between Philips and Douwe Egberts (Sara Lee) (PWC, 2007).

Wholesale companies will collaborate to increase economies of scale and to increase buying power. However, sourcing networks also offer opportunities for wholesale companies as suppliers and clients increasingly focus on their core activities and outsource other activities, which can be provided by the wholesale sector. The wholesale companies can also decide to focus on their core activities and outsource for example transfer and warehousing to distribution centres. This will lower their inventories, decrease out-of-stock, increase labour productivity, and improve customer service (De Jong, 2003).

Large retailers have developed global sourcing networks that allow them to identify and choose those suppliers around the world that can produce goods according to the desired product requirements and at the lowest possible costs.

Driven by economies of scale, retailers increasingly collaborate. Independent retailers collaborate in purchasing networks to increase buying power. These purchasing networks can be set up as international voluntary buying groups using the same sales format in their stores. An example of this is Intersport, which is a common store format (assortment, styling, name) used by individual and independent retailers. Retail purchasing networks often use Electronic Data Interchange (EDI) systems to link directly with many suppliers and to increase efficiencies in the supply chain management. There are also examples of very large international business-to-business networks. For example, WorldWide Retail Exchange (WWRE) was established as an Internet-based business-to-business retail e-marketplace in 2002. WWRE was founded by 17 international retailers from different sub-sectors. WWRE enables retailers and manufacturers in the food, general merchandise, textile/home, and drugstore sectors to substantially reduce costs across product development, e-Procurement, and supply chain processes. The network has alliances with technology and service providers, providing the underlying software, applications, data networks, data management etc. In 2005, WWRE merged with GlobalNetXchange (GNX) which was established in 2000 and includes large retailers like Carrefour, Metro, Sainsbury, and Sears (ILO, 2003; <http://www.worldwideretailexchange.org>).

Retail buying networks can also develop their own retail brand products (often commodities). For example, in AMS 11 European retailers collaborate in buying food and non-food products and they have developed a retail discount brand called Euro Shopper. Euro Shopper is sold in the supermarkets of the members of AMS in 15 European countries (<http://www.ams-sourcing.com>).

Another form of a retailing network is the establishment of franchising chains. With franchising, a franchisor authorises a proven business model to a franchisee for a fee or a percentage of the sales. Franchising gives entrepreneurs the opportunity to start a new business with a proven business model. For the franchisors, franchising offers them the possibility of expanding their business at a much bigger scale and pace. Some retail formats are fully based on franchising, others are a mix of own stores and stores owned and operated by franchisees. Also entrepreneurs can have independent stores and formats as well as franchise store at the same time.

At national and European level, retailers and wholesale companies collaborate in various platforms for example on standards, quality and safety in the supply chain, technology, labour etc. These platforms are used to discuss issues of interest to both, but also to organise more negotiating power toward national and European governments. At European level, the commerce sector is represented in EuroCommerce, which includes commerce federations, national and international associations, representing specific commerce sectors, and individual companies.

## **4.2 Restructuring and change**

The traditional division of activities between wholesale and retail has changed considerably over the past 20 years. As described in the previous section (section 4.1) the most important changes in the distribution and trade value chain include:

- Increases in scale of operations to capture economies of scale;
- Integration of the wholesale and retail functions;

- Disintermediation as a result of technological change (internet, e-commerce); and
- Reintermediation through the provision of additional services by aggregators and infomediaries.

Important drivers for these changes are the horizontal competitive relationships among retailers and new forms of relationships between manufacturers, wholesalers, and retailers.

### **Horizontal competition among retailers**

Retail trade faces a growing intensity of competition. The large enterprises are getting bigger and the SMEs are struggling to hold their positions on the market. This intensified competition has resulted in a further concentration in both the number of enterprises and the turnover (Jacobsen, 2002). Of the 500 biggest companies in the Fortune Global 500, 61 are multinational companies in trade and distribution, of which the majority is in retail. The largest company in the world, Wal-Mart, is a retail company (EMCC, 2007). In 2000, the ten largest food chains in Europe accounted for 42% of the total European retail food turnover; ten years earlier this was 13%. It is even expected that a sales volume of € 150 to 200 billion will be the norm for a global player in retail (Jacobsen, 2002). There is a constant search for economies of scale and efficiency improvements, which results in mergers and acquisitions and further consolidation.. Moreover, there is a retail-specific factor called ‘Wal-Mart’. This company has always searched for supply chain efficiencies and negotiated very favourable terms with its suppliers, just to offer discount prices and to undercut its competitors. The only way to have a chance to compete with Wal-Mart and the like is to grow to a competitive size, to organise supply chain cooperation, standardization, and integration in order to increase purchasing power (ILO, 2003).

The constant growth of already large retailers is also characterised as High Volume Retailing (HVR). High Volume Retailers (HVR) are firms having a market share of more than 5% or a turnover higher than € 200 million and employing 250 persons or more (EECS / CCMI, 2008a; London Economics, 2008). The Consultative Commission on Industrial Change (CCMI) from the European Economic and Social Committee (EESC) initiated a study to analyse the relevance of and developments in HVR and to discuss the potential social and economic effects. London Economics provided the statistics for this study about HVR in groceries and clothing. The study focussed on eight countries across Europe: UK, France, Germany, Spain, Italy, Romania, Poland and Czech Republic. The study shows Germany and the UK are the most concentrated markets, where the five largest retail firms control over 70% of the market. that the turnover of high volume retailers increased significantly in the past five years. In France this market concentration reaches 60%. Other studies confirm that also in Ireland and Sweden the top 5 retailers made up more than 70% of food retail market in 2005 (EESC / CCMI, 2008b).The food retail market has the highest concentration; the clothing sector is more fragmented, although in the UK 35% of the clothing market is controlled by the five largest companies. In recent years this concentration has increased in general. In terms of employment, in the UK and Germany HVR employ respectively more than 75% and 60% of workers in food and department stores. In Poland this is about 20% and in Romania less than 5%. The share of suppliers’ sales through HVR is increasing and ranges from 64% in Germany to 10% In Romania (London Economics, 2008).

Although the profit margins in food retail are rather low (not higher than 4%), the high volume sales of these retailers result in substantial profits. There are worries about the potential negative effects of the continuous growth of HVR. According to the EESC (2008), HVR could lead to too much power for retailers in the supply chain and practices considered

as unfair like below cost selling, price flexing (prices adjusted at local level), waterbed effects (suppliers charging higher prices to smaller retailer to compensate for lower prices given to HVR), the use of own-branding, retrospective changes in trading terms by HVR on suppliers, lump sum payments from suppliers to secure orders and shelf positions, charges for customer complaints, etc. However, the study also acknowledges positive effects of HVR, especially in developing countries as they offer new opportunities in these countries because of the retailers' global sourcing strategies. The EESC (2008) proposes to organise a code of practice between retailers and suppliers that self-regulate the balance of power between suppliers and retailers. EuroCommerce (2008b), on the other hand, does not see the need for a code of conduct. The retail sector is constantly monitored for potential anti-competitive effects and the EC competition law as well as national legislation provide sufficient safeguards. Moreover, there is no evidence for abuse of market position by retailers in Europe. EuroCommerce states that a strong market position for the retailers is necessary to serve as equivalent counterparts to the small number of very powerful suppliers, which in some countries control more than 70% of the market. They also refer to a study by the CPB Netherlands Bureau for Economic Policy Analysis (2008), showing that there is no clear indication that retailers have raised their buying power between 1993 and 2005 at the costs of consumers or manufacturers. Moreover, the profit margins of retailers are two to three times smaller than for manufacturers. EuroCommerce (2008b) refutes the arguments that consumer prices have increased because of concentration in the retail sector. According to EuroCommerce (2008b), retail prices have increased lower than inflation over the past decade and the recent price increases are mainly due to higher prices for agricultural products and energy due to fact that demand is rising faster than supply. In addition, retail prices follow closely market fluctuations.

Horizontal competition among retailers is directly linked to the retail format. There are several retail formats, including discount stores, convenience and forecourt stores, hypermarkets and superstores, supermarkets and neighbourhood stores, and cash&carry stores. Especially the mass retailers and superstores have emerged in recent years and they grow faster in comparison to traditional or small retail outlets (Jacobsen, 2002). Competition is generally based on price, variety in goods' categories, the assortment, and the store locations, but competition is increasingly based on price competition between different retail formats as well as among the same retail formats. Price competition is mainly the competition focus of the mass retailers, as intense concentration could encourage price-oriented strategies as market leaders convert cost leadership into price leadership (Jacobsen, 2002). The small firms are being pushed towards survival strategies, including price-cutting, reducing costs, and narrowing product ranges (ILO, 2003). However, small-store formats do increasingly have more opportunities to focus on low prices as they are becoming more cost efficient (EMCC, 2007). Nevertheless, price competition is extremely difficult for the smaller companies and a reverse trend is also visible: a stronger focus on customer relations and offering more and better individual service to customers, which justifies higher prices and therefore a higher profit margin (Bärwald, 2004).

### **New relations between suppliers, wholesale, and retail**

A direct result of the concentration and consolidation is that large retailers have more bargaining power towards suppliers and can negotiate lower prices. Moreover, large retailers even integrate the wholesale function and negotiate directly with the manufacturers. The large retail companies are global buyers as they, together with global brands (like Nike and Disney), are searching all around the world for the best products at the lowest possible price. Some even say that these large retailers like Wal-Mart have very strong economic power as they are deciding where production should take place in the world (Interview with Gary

Gereffi by PBS Frontline, 9 September 2004). Although the US-company Wal-Mart is often used as an example for developments in retail, it should be kept in mind that, despite its success in the USA and other parts of the world, not all internationalisation moves of Wal-Mart are a success. In 2006, Wal-Mart sold its German stores to its competitor Metro, nine years after entering the German market. The cultural differences and difficulties with adjusting to local tastes remained a serious barrier to successful operations for Wal-Mart in Germany (BusinessWeek, 28 July 2006).

Retailers that want to move away from these traditional competition strategies introduce a wider perspective that considers cooperation and competition both in the vertical and the horizontal dimension. A good example of this trend is the development and promotion of own brands. Although the control on product design, specification, and quality monitoring are internalised by the retailer, the (investment in) production is externalised (Dawson, 2001). Another example of vertical changes in the functions of retailers is including the 'productivity' of customers and suppliers, through in-store services such as bakeries and coffee shops, and through cooperative brand development with suppliers (EMCC, 2007). The relation with the customer is also strengthened through the introduction of customer loyalty and reward systems.

### **Effects of consolidation on employment**

There are not so many studies on the effects of mergers and acquisitions (M&A) in the commerce sector on employment. A study by the International Labour Office (ILO) in 2003 aimed to analyse these effects in more detail. The study shows that effects on employment as a result of M&A in commerce can differ significantly among countries and among M&A 'cases' in the same countries, because of laws, traditions, the sub-sector involved, employment structure, and the specific merger objectives. For example, in the UK the employment in the commerce sector continued to grow in 2001 and 2002, by 8.1 and 2.2 per cent respectively, while it experienced heavy M&A activities and a recession. On the other hand, in the new Member States the consolidation of the sector comes together with the entry of global retailers and this may push local (smaller) retailers out of business. This will certainly lead to fewer jobs and, although the global retailers will also recruit new people, there still will be a net job loss (ILO, 2003).

Although the various studies give ambiguous results, the general conclusion is that a merger or acquisition in commerce does not necessarily lead to job losses, as internationalisation and growth leads to employment growth as well. However, in small and medium-sized companies jobs have been lost because of tough competition with the big companies. According to ILO (2003), the job gains resulting from internationalisation and growth are usually insufficient to cover for losses in SMEs. An important reason for the relatively low level of job losses is that in commerce, M&A are not primarily driven by cost-saving considerations, but more by increasing competitiveness, reaching greater market shares, accessing new markets, etc. Although, M&A in commerce may not lead to direct job losses, the impact of M&A may be wider than just job losses. The ILO report (2003) states that M&A activities in the commerce sector do not seem to affect local working conditions much. A previous study by ILO on M&A in financial services showed that M&A led to more part-time and temporary work and different working hours, but in the commerce sector, especially in retail, this is almost standard. According to the ILO report on M&A in the commerce sector (2003), it seems that M&A in the commerce will only strengthen an already existing employment situation. The ILO study (2003) also shows that social dialogue between employers, employees, and unions

is increasingly used for managing the effects of mergers and acquisitions and balancing the interests of employers and employees.

Internationalisation has also effects on the human resource strategies and operations, as the HR department needs to provide information on local laws and working practices. In addition, retailers will need to introduce a HR strategy for emerging markets, as the current supply of skilled workers is already insufficient (EMCC, 2007).

## **5 Sector dynamics and the role of technological change, R&D and innovation**

The trade and distribution sector spends relatively less on research and development (R&D) than other sectors, but is an important purchaser of high-tech inputs developed in other sectors. In Europe (EU27), the R&D investments of the distribution and trade sector had a share of between 0% and 3% of the total R&D investments of all NACE branches (EMCC, 2007). R&D is mainly focused on researching consumer trends and on developing new services. Large companies spend their R&D expenditures also on new technological developments such as automated check-out systems and radio frequency identification (RFID).

### **Information and Communication Technologies**

The main technological change in the wholesale and retail sector has come from the developments in information and communication technologies (ICT). The wholesale and retail trade sector is among the largest relative investors in ICT equipment (Pilat et al., 2002). ICT has (and still is) influenced the wholesale and retail operations drastically and at many different levels. ICT provides the tools to automate business processes, to analyse performance, and to manage relationships with customers and suppliers. ICT has contributed substantially to advanced supply chain management lowering inventory in warehouses (and thus lowering costs), while decreasing out-of-stock and improve pricing strategies. ICT has also driven significant trading advantages through smarter customer data and has driven the development of e-retailing and home shopping (ILO, 2003; ILO, 2006; EMCC, 2007; Van Ark et al., 2000; BusinessWeek, 2004). ICT is also used to encourage customers to take on work that is normally done by store employees, e.g. weighing and pricing vegetables and fruit and self scanning and self-checkouts (BusinessWeek, 2004). A new development in applying ICT in the store is paying by using your finger print. The system is increasingly getting in use in several European countries and the USA, although the system exists already for some time. By using the finger print, purchases will be automatically deducted from the account. The system saves money because of less need for cash money, lower costs for electronic payments, and faster transactions (Elsevier Retail, 23 October 2007). A next step could be payment via iris scan (Elsevier Retail, 23 October 2007).

Introduction of ICT in the distribution and trade sector has also enhanced the introduction of lean retailing, i.e. applying the principles of lean manufacturing to the retail sector. Lean retailing includes simplifying work design, lowering inventory and out-of-stock at the same time, removing bottle necks throughout the supply chain, and eliminating wasted time, effort, motion, and materials. Lean retailing results in higher productivity and lower costs (also lean staffing levels) and in better service to the customer (McKinsey, 2008). Lean retailing

requires increased flexibility, which is needed to address peaks and low-times in activity, which can vary from day to day. However, balancing between flexibility in human resources, costs and staff turnover is very complicated and requires technological solutions (ILO, 2003). ICT tools also enable real time retailing, i.e. providing real time information on sales, supplies ect., which helps the retailer to make immediate decisions (Elsevier Retail, 25 February 2009).

An OECD study (Pilat et al., 2002) analysed the impact of ICT use on productivity and MFP (multi-factor productivity) growth. It showed that in the USA the annual average contribution of ICT-using services to aggregate labour productive growth reached 1.2 percentage points in the second half of the nineties and that this could mainly be attributed to the retail sector. For European countries this contribution was much lower with Ireland at the top with reaching 0.65 percentage points in the second half of the nineties. There are also some studies providing evidence that multi-factor productivity (MFP) has grown considerably in the ICT-using services in the USA, which can mainly be attributed to the retail sector and which is mainly based on a more efficient use of labour and capital and not on network effects. Nevertheless, for most other OECD countries there is little evidence for the impact of ICT-use on productivity growth. This could be related to restrictive labour and product market regulations that have hindered sufficient return on investments (Pilat et al., 2002).

### **E-commerce**

While the sector has fully integrated all kinds of ICT tools in its daily activities, the uptake of e-commerce has been slower so far. In 2006, e-commerce had a share of approximately 10% of the total turnover of distributive trades and wholesale trade enterprises with 10 or more employees (Eurostat, 2007). This is similar to the share of e-commerce for all enterprises without the financial sector. However, the majority of these sales are to other businesses and the government sector, with 75% coming from sales over networks other than the Internet such as proprietary electronic data interchange (EDI). Almost three-quarters of the e-commerce sales are to national clients, 15% is sold to clients in other EU countries, and 8% is sold globally. The share of sales over Internet for the distribution and trade sector amounts to 3% of the total sales, while the share of Internet sales to consumers (e-retailing) is only 1% of the total sales in the distribution and trade sector. Most on-line purchases by consumers are related to travel and holiday accommodation, followed by books, magazines, and films and music. Food and groceries had a share of 3% in the online sales to consumers in 2006. Convenience is an important reason to buy online. In addition, price comparison sites belong to the most accessed of all Internet sites (European Commission, 2007).

According to the e-Business Watch surveys of 2003 and 2007, the total share of orders placed by retailers online has increased from approximately 10 to 15% in 2003 to 25-30 % in 2007. In addition, the share of retail companies that sells online doubled from 19% in 2003 to 38% in 2007. The share of online sales is higher for large firms (45%) than for small retailers (26%). Between 2003 and 2007, the share of firms in which online sales account for more than 25% of their sales volume increased from 5% to 28%. Moreover, the e-Business Watch 2007 study showed that especially SMEs use the Internet to extend their sales from the regional focus to the national level (e-Business Watch, 2008)

Despite the somewhat slow start, the introduction of e-commerce is a main driver for change in the distribution and trade sector. On the one hand, e-commerce is used by traditional operators as a tool, next to stores and catalogues and is therefore mainly a facilitating technology. Internet is then used as an extra sales and information channel (multi-channel



retailing). On the other hand, e-commerce has led to the establishment of new actors (and business models) in the sector, either focusing on reaching maximum efficiency (e.g. Amazon and Dell) or aiming at becoming niche leaders (EMCC, 2007). Online auction and shopping sites like eBay have taken an interesting position. eBay and likes are a platform for Internet users (consumers and business) where they can sell goods (new and second-hand) and services through auction style listings or a fixed price format. Started as an online auction platform for consumers to trade second-hand goods, collectibles and repair parts, eBay has transformed into a major online sales channel, which is increasingly being used by enterprises selling their surpluses, but also their newest products and services using competitive auctions and fixed-price storefronts. In 2008, the total value of all goods sold in all the marketplaces hosted by eBay amounted to almost 60 billion USD and at the end of 2008, the marketplaces of eBay attracted 86.3 million users worldwide (Annual Report eBay 2008)

Already since the introduction of e-commerce, expectations about success have been high. Nevertheless, the successful adoption of e-commerce is challenged and there are several obstacles to overcome. Efficient order fulfilment, substantial average order sizes, and substantial gross margins are needed for successful (profitable) e-commerce transactions (Jacobsen, 2002). For wholesale companies more sales via the Internet is not just beneficial. There also some disadvantages such as a higher inventory, smaller order sizes, and more transport (De Jong, 2003). Other obstacles deal with issues of consumers' trust and confidence, efficient and reliable online payment systems, and a reliable delivery of goods (European Commission, 2007; e-Business Watch, 2008). Other challenges include finding the right fit between online and offline business strategy, integrating the e-sales practices with existing operations, overcoming the initial and maintenance costs of e-sales, as well as training the employees in using e-sales applications (e-Business Watch, 2008).

For established retailers it could be easier to be successful because Internet is then an additional channel to the customer (Jacobsen, 2002). Traditional retailers have a well-established brand identity and their physical stores are perfect for promoting the virtual store and for customers who actually want to see and feel products (Weltevreden and Boschma, 2008). Forrester Research calculated in 2004 that in the USA the majority of online sales are coming from the same retailers that dominate offline sales and that the total online sales from multi-channel retailers is rising (Johnson, 2004). In addition, consumers frequently use the Internet to research items online and then to buy them offline (cross-channel shopping) (Johnson, 2004). According to Weltevreden and Boschma (2008), retailers can follow nine active Internet strategies, ranging from providing information to the customer about the company and the products to providing additional services on the Internet (e.g. online help desk), to creating synergies between the virtual and physical stores (e.g. cross-promotions) to finally a full virtual strategy with only a virtual presence and closing down the physical stores. Weltevreden and Boschma (2008) also related the Internet strategies to perceived performance and their research suggests that an Internet strategy almost always had a positive effect on performance, for example in having more customers in-store, better customer relationships, improved customer service, better exposure, and sales growth. Their research also suggests that more sophisticated websites (hence, providing more services than just providing information) lead to better-perceived performance. Another interesting result is that independent retailers benefit more from going online than multiple retailers, part of a retail chain. These is probably because independent retailers can distinguish themselves better from competitors and benefit relatively more from extending their market than multiple retailers

who already target a larger market (Weltevreden and Boschma, 2008). Additional information on e-business and retailing is provided in Box 2.

**Box 2. E-Business and Internet-based retailing (by M. Leis, TNO, The Netherlands)**

The internet has also changed the logic of retailing. In a world where products are sold in physical (in contrast to “virtual”) stores, the retail strategy has to be economically demand-oriented. Every item that will not be sold within a certain time will lead to economic losses. In such a setting, niche products cannot be really profitable. If retail is conducted virtually over the internet with no physical store needed, however, two things change. First, storage costs of goods will be lower as cheap warehouses, rather than expensive shop space can be used. This means that rarely bought items can be kept in the inventory for a longer time. Second, the potential size of the market increases dramatically: in principle e-stores are global retailers. This new logic in retail has been dubbed “long tail” by “Wired” magazine editor-in-chief Chris Anderson (2006). The internet also helps people with finding such rare items and niche products. The prospect that nearly every desired article could be found or created and sold also changes the expectations of consumers who are becoming increasingly interested in customised products. Digital products are especially suited for niche-markets since their storage comes with virtually no costs. Digitalisation already had a profound influence on music and film distributors in regard to the form of distribution (download instead of physical shops) as well as copyright and digital rights management issues. The internet did not only have an impact on retail of digital entertainment products (films, music, computer games), but also on selling and buying other items. Places like eBay or internet networking platforms enable direct sales from end-user to end-user while bypassing professional retailers (a process known as disintermediation). Especially second-hand and wrongly-bought items are (re-)sold this way. But also clothes, artwork and books (e.g. books on demand) can be sold directly from the producer to a consumer. This enables the production and sale of products that would be unprofitable to classic professional retailers, music labels, distributors or publishers.

But despite the revolutionary effects of internet retailing, its possibilities and success (still) have limitations. For example, the large majority of companies that have established virtual shops in the virtual internet platform “Second Life” did not succeed there and had to abandon or scale down their virtual presence. Some of the reasons for the limited success may be of a technical nature. Moving around in “Second Life” is rather complicated, the internet platform quite often experiences technical glitches and there need to be real people investing their real time in “Second-Life” activities, something that actually does not contribute to rationalisation. Some products are also simply not suited for internet retail. “Haptic” information (i.e. “touch and feel” related product qualities) plays a central role in buying clothes foods, tools or items where ergonomics is important. Although it is principally perceivable to simulate haptic and olfactory information in virtual reality, such systems are not likely to be available within the time-frame of this study. Therefore one important advantage of physical stores lies in the live shopping experience and the closeness to the product. This makes the dimension of atmosphere and ambience in stores and shops even more important. From this, the necessity for new skills in retailing, e.g. in psychology or neurosciences may emerge.

Source:

Anderson, C. (2006) *The Long Tail. Why the Future of Business Is Selling Less of More*. New York: Hyperion

Research efforts related to e-commerce are dedicated to improving the online shopping experience by offering better searching facilities in combination with tracking buyers’ behaviour, personalised promotions, and more interactivity.

As mentioned in section 4.1, e-commerce is one of the main drivers for disintermediation and reintermediation in the commerce sector. Using Internet, manufacturers can serve the final

consumers directly without using wholesale and retailers. Retailers can organise procurement directly with the manufacturers without using wholesale. On the other hand, Internet has led to the establishment of new intermediaries in the value chain, for example the infomediaries providing structured information on specific product groups (items, prices, characteristics, reviews etc) to end consumers.

A next level in e-commerce is m-commerce, online shopping using the mobile phone. The mobile phone is becoming a very important device in retail, stimulated by the march of smart phones (e.g. iPhone by Apple, Google phone by HTC or Nokia phones) (TNSGlobal, 2008). At the moment, smart phones are mainly used for checking information on products and prices and only to a small extent for buying online. A study by Foresee Results (2009) shows that 72% of the American consumers who use a mobile phone when shopping, uses it to ask another person about a purchase, while 40% makes a picture and send it to another person, 24% uses the phone to check prices online and 15% uses mobile Internet to check product information. Using the mobile phone to buy online is hindered because web shops do not always support the scripts and standards for mobile browsing. Manufacturers of mobile phones now get heavily involved in mobile shopping as they develop their own systems supporting mobile shopping using their phones (e.g. iTunes by Apple matches perfectly with the iPhone). This turns manufactures of mobile phones into retailers as well. The mobile phone can also be used for location-based marketing to consumers. Customers can receive personalised marketing messages and discount coupons via their mobile phones or handheld computers as soon as they are approaching a store (BusinessWeek, 2004). Near Field Communication technology enables tailor-made and individual marketing, shopping and payment via mobile phones. Near Field Communication technology is the integration of special chips in mobile phones that can communicate with computers offering services at a short distance (20 cm). Mobile phones can then be used for scanning the barcodes to check the product's freshness or for scanning barcodes in advertisements to look-up websites automatically. A new application is that mobile phones will be able to recognize products in the shop, which you then can order on the Internet (Elsevier Retail, 16 December 2007 /18 January 2008). In Japan, these smart, mobile, chips are already used as credit cards, bank cards, public transport tickets, subscription cards and even as front door key (Elsevier Retail, 25 February, 2009). Mobile phone and the Internet will change the interaction between consumers and retailers, it enhances the market transparency and consumers will have more knowledge about products, pricing, features and product performance than salespersons. This is also seen as an important contribution to the realisation of a Single European Market (European Commission, 2007).

The increasing popularity of online auction sites could lead to more consumers becoming retailers, possibly diminishing the role and value of retailers. The Internet also results in a new medium for advertising, for example through much focused, subtle, guerrilla-like advertising via YouTube or shops in Second Life. Finally, the Internet will make it easier for consumers to find information about and for NGOs to question child labour, sustainability, and safety issues at companies (Deloitte, 2007).

### **Radio frequency identification technology (RFID)**

One of the latest ICT developments that could potentially have a great impact on business processes and labour is the development and introduction of radio frequency identification (RFID) technology. RFID is considered as the next generation of the bar code. RFID makes it possible to transmit the identity of an object wirelessly, using radio waves. RFID uses tags for remote storage and retrieval of data. A RFID tag can be placed on a product or packaging

and in combination with RFID readers and a data system, the product or groups of products can be electronically and automatically identified and tracked without having to scan every item individually. RFID promises major efficiency gains (and therefore lower costs) in process management and warehousing. It can substantially contribute to more efficient logistics in warehouses, it can replace cashiers in shops, it can help to control sensitive cargo (e.g. checking temperature of perishable goods), it can help to reduce theft, and to decrease the number of items being out of stock (ILO, 2006; EMCC, 2007; BusinessWeek, 2004; The Economist, 2007).

The application of RFID in distribution and trade is still in the beginning phase and, although it has big promises for the supply chain management. In the e-Business Watch Survey 2007, only 4.7% of the retail firms included in the study used RFID technology and it was more used by large firms (15%) than by small firms (only 2%) (e-Business Watch, 2008). Present applications are mainly related to security (preventing theft). There are many problems in the further development and application to be addressed. The main hurdles are the high costs of the RFID (tags and infrastructure), different standards, the impact on privacy of consumers (and employees), and the fact that benefits will probably be bigger for retailers than for suppliers, while suppliers will have to make most of the investments (ILO, 2006; EMCC, 2007; BusinessWeek, 2004; The Economist, 2007).

### **Employment effects of RFID**

A study by ILO (2006) analyses the possible effects of applying RFID on employment. Because RFID is still in its starting phase, it is not possible to draw any concrete conclusions. Regarding the relation between technology and employment, there are different effects possible: the introduction of a new technology can lead to more productivity and through the development of new products to more demand. If productivity increases come along with increases in demand, employment will be protected. If demand increases more than productivity, new jobs will be created, but if demand stays behind productivity increases, jobs will be lost. Many economists stress that when a new technology results in job losses in the short term, increase in demand because of lower prices (driven by cost-savings resulting from higher efficiency) will often lead to more production and hence more labour in the longer term. Even if lower prices do not result in more demand, the effects on employment may still be positive as consumer can save money, which they can spend on other goods and services, resulting in more jobs elsewhere (ILO, 2006). The ILO study (2006) expects that these experiences with new technologies in general will also apply to RFID in retail. The study expects that the adoption and diffusion of RFID will gradually impact employment in retail and that it could lead to job losses, but that it could also shift workers to more service-related positions. In addition, the study expects that the introduction of RFID and other IT-related applications may lead to retail workers to become more IT-literate, also requiring higher skills (ILO, 2006).

### **Future trends in retailing**

Although the introduction of ICT has led to significant cost reductions, another goal of research activities and the introduction of new technologies is to address the needs of the customers in the best possible way. Therefore, a lot of research is focused on analysing shopping behaviour of consumers and consumer market segments. Related to that is research in fields such as pricing and promotion, business models, future of brands, shopping density, customer loyalty, shop formats and future shopping places, supply chain management, and transport modes (EMCC, 2007; Grewal and Levy, 2007).

Foresight studies (e.g. HBD, 2006; Forum for the Future, 2007) describe several trends for retailing in the future (2020 and beyond). Retailers will increasingly become a brand in itself and consumers will search for experiences when shopping. Experiences will be provided by the retailers, but also by shopping-malls offering more than just shop floor space. This fun-shopping will be extended to e-fun-shopping (HBD, 2004; HBD, 2006; Forum for the Future, 2007). A main trend is the one-on-one relationship between retailer and consumer, also driven by ICT tools enabling this, such as narrowcasting (HBD, 2006; Forum for the Future, 2007; Accenture, 2008; Elsevier Retail, 2009). Mass-customisation will be fully adopted in the future. The retailer will know a lot more about his customers and customers will use the Internet to search and compare offerings. A specific market will be addressing the shopping needs of the elderly, as the society is increasingly ageing. Customers will require retailers to be available 24/7. Infomediaries will increasingly become important for consumers to find the right offers, but will also help retailers to find the right customers. E-retailers will increasingly specialise in niches and will use a full multi-channel strategy. The one-on-one relationship between retailer and consumer will be further enhanced by the adoption of RFID technology. RFID will help to increase the volume and value of data about customers and products and this can be coupled to customer loyalty reward systems, marketing activities, inventory management (e.g., real time retail: a purchase gives immediate action in the supply chain), payment systems (e.g., self check-out), etc. RFID in combination with e-commerce will enable networked shopping, where the supply of goods is automatically managed by the household appliances themselves (i.e., the networked refrigerator) (TNSGlobal, 2008). The power of the consumer will further increase: The consumer will together with the retailer co-create a product or service; the consumer will have a say in the product and promotion in exchange of his ideas and data (e.g., tailoring product offerings to customers need); and the consumer demands more transparency about the supply chain (HBD, 2006; Forum for the Future, 2007; TNSGlobal, 2008). Social Networking Shopping Web Sites are expected to become a major tool in the near future. Consumers will share online information about the hottest stores, new products, trends and must-have products and these sites provide retailers and manufacturers a lot of important information about what consumers want (TNSGlobal, 2008). Another form of increasing consumer power will be group buying; consumers will establish purchasing collectives to increase their purchasing power towards retailers (TNSGlobal, 2008). Technology will also further enhance the development of interactive purchase assistance. Smart Carts will help consumers to make shopping lists, to search products in the supermarkets, to check prices, and to get special discounts. 3D Body Scanning, interactive dressing room help and mirrors will help consumers to find clothing that fit them best, without making a lot of effort (TNSGlobal, 2008).

Full mass-customisation requires increased flexibility in everything. Retailers will need to tailor their offerings to their customer, who will be less loyal and will be more active in negotiating prices and services. This requires flexible retail formats (e.g., mega supermarkets as well as small convenience stores at high-traffic locations like railway stations), flexible prices, flexible services, flexible customer loyalty rewards programmes, flexible opening hours, flexible workforce, flexible shop designs and real estate (e.g. flexible contracts, guerrilla stores, retail at special events, and flexible rental schemes, partly based on turnover), flexible payment options, flexible logistics directed by the customer, and flexible relationships with suppliers (e.g. networks of supplies and suppliers). This increased flexibility will even stretch to the flexibility of possession: an increased use of rental and even leasing constructions and services (HBD, 2006).

A very important future issues for retail is Green retailing (Accenture, 2008). Green retailing, or focus on sustainability, is considered as a must have, driven by both consumers and government regulation. Green retailing has different dimensions, ranging from premium payments for environment-friendly products, to less energy consumption and decreasing levels of CO<sub>2</sub>, as well as the creation of higher standards for ethical trading.

## **6 Trade, globalization and international competition**

### **6.1 An overview of international competition**

#### **International competition in wholesale**

The competitive environment of wholesale is increasingly becoming complex and internationalised. Producers are vertically integrating by taking over wholesale companies, by opening their own stores, and by direct selling via the Internet. Retailers are vertically integrating by internalising the wholesale function and doing business directly with the suppliers. Large retailers are also entering the professional users. The wholesale faces also increased competition from service providers specialised in logistics, which forces wholesale company to show their added value. In wholesale, several strategies are needed to increase its competitiveness. First, a wholesale company will need to offer additional services, for example by providing special services like financing, training and technical advice, pre- and after sale services. Second, wholesale companies will need to invest in process innovation, for example by fully integrating on-line ordering by clients, by uncoupling and outsourcing footloose activities like administration from inventory and physical logistics, and by introducing tracking and tracing systems which will help to lower inventory levels. Third, wholesale companies can broaden their assortment and offer one-stop-shopping to their customers. A fourth strategy is realising economies of scale and synergies by acquiring other wholesale companies or by collaborating with other companies. Economies of scale are needed to realise the investments in process innovations, broader assortments and additional services, and to cope with international competition. Finally, wholesale companies need to internationalise as well, because the sourcing for goods is internationalised, emerging markets offer new growth opportunities, and wholesale companies can act as intermediaries for industrial SMEs that lack capacity to operate internationally (Ministry of Economic Affairs, 2005).

#### **International competition in retail**

In the Deloitte's Top 250 retailers in the world for 2005, 36% of the companies were US-based and accounted for 45.6% of the top 250 sales volume. Europe had an equal share in terms of companies, but with a lower share in the sales volume (39.2%). Japan followed with a share of 13.6% in terms of companies, but with a corresponding sales volume of only 7.2%. Most of the Top 250 companies are active in the food sector. However, this share is slowly decreasing at the benefit of specialty formats like in clothing, toys, and home decoration. Deloitte's study also shows that diversified companies (active in food, apparel, and hard goods) realised the strongest growth in sales and profitability in 2005 (Deloitte, 2007).

Driven by slow growth in the domestic mature markets, opportunities in emerging markets in Asia and Latin America, less restrictive regulations of Foreign Direct Investment (FDI) in emerging markets, as well as the enlargement of the European Union, retail has increasingly

globalised the past decade (Dawson, 2001). According to Deloitte's Top 250 retailers, these 250 largest companies in the world were active in on average 5.9 countries in 2005. Nevertheless, for the Top 250 retailers, foreign sales accounted for only 14.4% of the Top 250 total sales and 107 retailers in this Top 250 have not started business beyond their own borders at all. The European retailers operated more internationally than the American retailers, with an average of 9.9 countries per company. European retailers realised 28.1% of their sales abroad. Especially retailers in France and Germany have an international scope (Deloitte, 2007). It is interesting to notice that the retailers that are most globally active seem to have relatively small home markets (e.g., Inditex from Spain, IKEA from Sweden). Other main drivers for expansion strategies are weaker consumer spending, intense competition, as well as tough regulatory environment (EMCC, 2007).

According to A.T. Kearney's 2007 Global Retail Development Index, India, Russia, and China are the top three countries for retail development. These three countries are heading a top 30 of emerging countries for retail using 25 macroeconomic and retail specific indicators. Countries are ranked according to their score on four main indicators, including country risk, market attractiveness, market saturation, and time pressure. In addition to this index, A.T. Kearney states that there are three factors that can be important to the success in the new market: (i) following the window of opportunity; (ii) understanding consumer readiness; and (iii) knowing when and how to move into second- and third-tier cities. The window of opportunity has to do with the opening, peaking, declining, and closing of new markets and each stage has its specific market entry strategies (A.T. Kearney, 2007).

For most emerging markets the following trends and issues can be observed (PWC, 2005):

- In most emerging markets, retailers need to invest heavily in supply and logistics chains, as these tend to be underdeveloped;
- Especially in Central and Eastern European countries, consumers are very price sensitive, also encouraging the penetration of private labels. In Asia, consumers are still very sensitive to their local brands and food culture, which requires further adaptation by the multinationals;
- Both in Asia and the Central and Eastern European countries shopping centres and entertainment shopping are increasingly getting important;
- The discounting format will play a significant role in emerging markets; and
- The markets in the main cities get saturated, resulting in new opportunities in medium and smaller cities.

Emerging markets have always been considered as rather risky, because of political problems, regulation, and economic imbalances. Indeed, past emerging markets like Hong Kong Singapore, Taiwan, but also Poland, Hungary, and Czech Republic, experienced strong growth, but also serious economic crises. However, today it is less riskier doing business in emerging countries because of better financial systems, lower currency risks, less restrictive regulation of FDI, and appliance to bilateral trade or WTO agreements. Nevertheless, the emerging countries are also competing amongst themselves, especially between China and India on the one side and the others on the other side. The second tier emerging countries will focus on their own competitive advantage, such as proximity to end markets, labour force and skill level, infrastructure, or to address the needs of China and India (e.g. raw materials, energy) (Deloitte, 2007).

### **Box 3. Retail trends and development in the BRICs**

In Asia, India and China are the prime destinations of FDI in retail in the region, but smaller Asian countries like Vietnam and Malaysia are growth markets as well. Although operating in India gives many opportunities, the actual setting up of foreign operations in India is limited by India's laws on foreign companies. Foreign single-brand companies can only enter the Indian market if they start a joint venture with a local partner, multi-brand partners can only operate through a franchise or cash-and-carry wholesale model. In addition, local retailers have ambitious expansion plans as well. In China, the retail sector is very fragmented with fierce competition, which will force retailers to consolidate to gain economies of scale. The world biggest high-volume hypermarkets have entered China's tier-one cities, but these markets have begun to saturate. Hence, expansion to medium and small cities is the next step. The local Chinese retailers are willing to compete intensively with the foreigners and have ambitious expansion plans as well. Vietnam is an interesting newcomer, as it joined the World Trade Organisation in 2006 and will probably remove the trade barriers against foreign entry of the market within a few years (A.T. Kearney, 2007).

In the Middle East, especially the United Arab Emirates offer large opportunities with the building of very large shopping malls, strong GDP, and a consumers' interest in a Western lifestyle (A.T. Kearney, 2007).

Latin American countries are recovering after the crises of the past decade, which offers new opportunities, but there is also fierce competition from local and North-American retailers. For example, the presence of Wal-Mart in Mexico is very strong, which makes it very difficult for European retailers to expand. In Chile, national companies have managed to block international retailers. Other Latin American countries, like Colombia, Peru, Uruguay, and Argentina are important upcoming markets (A.T. Kearney, 2007).

Russia remains a very attractive market with retail sales growing by 10% or more in recent years. Moscow and St. Petersburg are the main markets, but saturation has started and local retailers have focused on medium and smaller cities. International retailers have noticed this as well and are expanding to these second-tier cities. In Central and Eastern Europe, Ukraine is a very promising market as it is highly fragmented with many small shops, but also with a growing preference among the Ukrainian consumers for shopping in malls and supermarkets. The enlargement of the EU has provided many opportunities in the Baltic States, Romania, Hungary, Slovenia, Bulgaria, and Croatia. Nevertheless, many West-European retailers have all entered these markets with strong positions, local retailers are consolidating and hence markets get rapidly saturated (A.T. Kearney, 2007). The strong growth of retail in Central and Eastern Europe has also implications for the food product procurement systems in these countries with a shift from local store-by-store procurement to centralised distribution centres, a shift from the use of traditional brokers to dedicated wholesalers, a shift to preferred supplier systems, and more use of multinational logistics firms (Dries et al., 2004).

According to A.T. Kearney (2007), global retailers should also look at the labour markets in the countries to expand, as finding a skilled workforce is as important as a ready market. Hot retail markets like India, China and Russia face major labour challenges as they have a shortage of middle and senior retail management, the supply of qualified talent is limited, even more in medium and small cities. In addition, employees will no longer be motivated by higher salaries only.

Internationalisation of trade enterprises has increased considerably and for the future it is expected that this trend will continue. Moreover, it is expected that the main road to expand internationally will be through mergers and acquisitions of foreign companies. Through mergers and acquisitions new markets can be entered rapidly and it will immediately result in increased sales figures (Jacobsen, 2002). According to Dawson (2001), retailers apply a variety of approaches to internationalisation with various modes of entry and different store formats, depending on the purpose of the internationalisation (market entry or growth in the market), potential benefits and problems, and opportunistic considerations. Especially



opportunistic considerations appear to be an important driver for internationalisation actions. According to Dawson, internationalisation is no longer a choice or a strategic decision, but it has become a need or must for realising growth. Hence, decisions on which countries to enter, which mode of entry, and mechanism for growth to use are responses to opportunities. Options for internationalisation include Foreign Direct Investment by store development, acquisition, joint ventures, store swaps, franchise-type agreements, and strategic investments without operational control (Dawson, 2001).

The question is whether the consumers will follow this trend of internationalisation as well. Consumer behaviour differs in each country and these differences will probably not disappear and the 'European' consumer will not exist in the short term. This implies that international companies will need to interact with local cultures and structures. The entering of the German and UK market by the US-company Wal-Mart showed that it is not simply copying and pasting a retail format into another country (Jacobsen, 2002).

## 6.2 Trade

The imports of the distribution and trade sector in the EU22 exceeded that of exports in 2006 (Tables 6.1 and 6.2). The exports for EU22 amounted € 37.5 billion in 2006, while the imports amounted to € 46.2 billion in the same year. The exports had a share of 3% in the sector's value added. The imports grew faster than the exports over the period 1995-2006; the average annual growth rate was 4.4% for exports and 6.7% for imports. In 2006, the export/import ratio was 81 for the EU22. The old Member States (i.e., the EU15) had the largest share in both the imports and exports; 97.5% and 94.6% respectively. Countries with strong growth in exports and imports (winners) include Italy, Denmark, Portugal, Sweden, Estonia and Hungary. However, in Belgium, France, Germany, Spain, Czech Republic, Poland and Slovenia exports and imports in the commerce sector are decreasing.

**Table 6.1 Exports distribution and trade, 1995-2006**

	<i>Exports</i>	<i>1995-2006</i>	<i>As share in value added</i>	<i>1995-2006</i>
	<i>Million euro 2006</i>	<i>%</i>		
EU	37 509	4.4	3	0
EU 15	35 491	4.0	3	0
NMS	2 018	16.3	2	1
Winning	18 266	9.9	7	3
Losing momentum	4 126	4.9	8	1
Upcoming	3 343	7.4	1	0
Retreating	11 774	-0.9	2	-1
	<b>Concentration &gt; 100</b>		<b>Concentration &lt; 100</b>	
Growth	<b>Winning:</b> Italy, Denmark, Portugal, Sweden, Estonia, Hungary		<b>Upcoming:</b> Netherlands, Greece, Ireland, United Kingdom, Lithuania, Slovakia	
Decline	<b>Losing momentum:</b> Luxembourg, Austria, Finland		<b>Retreating:</b> Belgium, France, Germany, Spain, Czech Republic, Poland, Slovenia	

Source: Eurostat/TNO

**Table 6.2 Imports distribution and trade, 1995-2006**

	<i>Imports</i>		<i>1995-2006</i>
	<i>Million euro 2006</i>		<i>%</i>
EU	46 157		6.7
EU 15	44 991		6.7
NMS	1 166		5.0
Winning	28 077		15.4
Losing momentum	7 555		5.8
Upcoming	771		17.7
Retreat	9 754		-2.3
	Concentration > 100	Concentration < 100	
Growth	<b>Winning:</b> Italy, Denmark, Portugal, Sweden, Estonia, Hungary	<b>Upcoming:</b> Netherlands, Greece, Ireland, United Kingdom, Lithuania, Slovakia	
Decline	<b>Losing momentum:</b> Luxembourg, Austria, Finland	<b>Retreating:</b> Belgium, France, Germany, Spain, Czech Republic, Poland, Slovenia	

Source: Eurostat/TNO

In EU22 and EU15 the commerce imports exceeded the exports, but the new Member States had a positive trade balance in 2006. The trade balance is very strong in Italy and Ireland and is improving in the Netherlands, Greece, Czech Republic, Estonia, Hungary and Slovakia. In France and Denmark, the trade balance is at risk, but substantially deteriorating in all other countries, mainly EU15.

### **Relevant trade issues in the sector**

The wholesale and retail trade sector is really an internationalised sector and relevant trade issues are mainly related to the existence of barriers to entry, which follow from regulation on various aspects. Regulations cover opening hours, the labour market, the real estate market, the energy market, costs of payments, pricing restrictions (e.g., on below cost selling), as well as marketing and advertising restrictions. But, regulation can also cover trade defence instruments like antidumping, anti-subsidy, and safety regulations. All these regulations can differ by country and can frequently change. Harmonisation of these issues (but also predictability and legal certainty) is needed to realise a Single European Market. Regulation intensity and complexity is often considered as an important factor in explaining the productivity gap between Europe and the USA (Bertrand and Kramarz, 2002; McKinsey, 1998).

Internationally, there are several initiatives to liberalise trade and diminish formal trade barriers (e.g., Doha Development Agenda) and to decrease the administrative burden (e.g., in WTO negotiations). In wholesale, the role of formal trade barriers like national and international regulation on international trade and the related administrative burden will become less relevant. Despite these efforts to decrease the (protective) regulation on international trade, there is a trend of realising supply chain transparency, including tracking and tracing instruments and quality marks and labelling. This could increase the level of trade barriers in international trade. It is also expected that the informal trade barriers, like information asymmetry, social-cultural trade barriers, issues of trust, etc., will become more important. Internationalisation of trade will require more efforts in dealing with language

barriers, building trust, and negotiating trade conditions. Another issue in international trade will be increasing international transport costs. Transport costs will increase because of higher fuel prices, but also because of problems with transport infrastructure and regulation on urban logistics (Ministry of Economic Affairs, 2005).

One of the most important regulations in retail is the regulation on location. In most countries in Europe, but also in emerging markets outside Europe, there is regulation on land use. Land use regulation defines in which places, which type of goods can be sold, but also the size of the stores. Regulation on location is described in more detail in section 7.

Another entry barrier are restrictions on Foreign Direct Ownership and ownership in general. In emerging markets like China and India, regulation exists that controls the ownership of companies. Foreign companies, for example, can only operate in these countries, if they set-up a joint venture with a local company or they are limited in their choice of retail format.

### **6.3 Externalisation strategies -outsourcing and offshoring**

Decisions on externalisation (and internalisation) are related to the internationalisation of the commerce sector. According to Swoboda et al (2008), retailers should decide on each value chain activity whether the activity should be externalised or internalised and how this should be coordinated internationally. Procurement is a very strategic activity in retailing, which is also a much internationalised activity. The majority of consumer goods in Western Europe are imported directly or indirectly from abroad. International procurement is driven by cost advantages on the one hand and local market factors (local tastes, etc.) on the other hand. Especially in non-food consumer goods, procurement is increasingly concentrated and centralised in internal business units, although these can be spread over various procurement markets. Nevertheless, internalisation of international procurement is not a rule. Retailers can use international wholesalers for achieving cost advantages, spreading risks and concentrating on their core activities. At the same time, these retailers can also use electronic procurement portals and control production of goods, which are strategically important to the firm's profile and position. Production is rarely internalised by the retailers and an often used procurement instrument is contract buying, which is a close contractual relationship between the producer and the retailer. An example of this is the network of suppliers to Zara, the Spanish fashion retailer. Zara has very tight contracts with local suppliers for flexible, just-in-time deliveries of clothing in order to address immediately the latest fashion trends. In addition, Zara procures half of its (basis) assortment in Europe and Asia with regular, looser purchasing contracts. In general, international cooperative arrangements are gaining importance, also stimulated by the use of virtual market places and partnerships between large retailers and top brand manufacturers (Swoboda et al., 2008).

For retailers, internalisation or externalisation of logistics depends on whether suppliers (manufacturers or wholesale organisations) can deliver directly to the shops. In addition, externalising logistics in the international market depends on local conditions. For example, in China logistics are very difficult to coordinate because of weak infrastructure, many informal distribution channels, inconsistent policies by central and regional governments, as well as many logistics service providers to do business with. Here, hiring international full-service support could be the right option. Achieving critical mass in logistics is another consideration in the externalisation decision. A combination of internalising and externalising is also possible in foreign markets. Logistics or stock-keeping alone are often controlled by the firm itself, but transport is often handled by service providers (Swoboda et al., 2008).

Also for wholesale companies a problematic accessibility of clients and an inadequate transport infrastructure could be an important issue in deciding on outsourcing transport or not. Clients desire just-in-time deliveries of exact (and smaller) amounts and in exact places, which will result in smaller and more frequent deliveries increasing transport costs and congestion problems. Wholesale companies (but indirectly also the retailers) face serious problems with their transport as traffic jams increase and government policies restrict the timeframe for deliveries in cities (De Jong, 2003).

Market-oriented value chain activities include marketing, but also decisions on market entry. International expansion can be externalised, for example through joint ventures, licensing and franchising. Mc Donald's is an example of expanding through franchising. Another way is international voluntary buying groups using the same sales format in their stores. An example of this is Intersport, which is a common store format (assortment, styling, name) used by individual and independent retailers. International retailers can decide to externalise their marketing activities, for example in cooperation with suppliers or by hiring specialised marketing agencies that can develop international marketing campaigns (Swoboda et al., 2008). Multi-channel strategies result in more customer relation related activities (besides contacts in the physical store also contacts via Internet, e-mail, phone). These type of activities (customer service centres) could be outsourced to specialised firms, also abroad (HBD, 2004).

#### **Box 4. Defining and measuring relocation and outsourcing**

One of the biggest challenges when analysing and discussing offshoring and outsourcing is the definitional issue of what precisely is meant and - closely related – how to measure the phenomenon. Outsourcing covers activities previously carried out in-house sourced to third parties whether abroad or in the home country. Offshoring in its strictest sense relates to activities being discontinued in the home country and transferred to a location abroad managed within the same entity or by an affiliated legal entity (OECD, 2007). Frequently, the political debate mixes the above three and also discusses job losses due to restructuring unrelated to offshoring under the same label. Furthermore, the political debate is fuelled by estimates which are the main source of evidence in the absence of hard statistics. Two broad sources on job relocation have as a result emerged: private consulting estimates and press monitoring estimates (Van der Zee et al., 2007). While consulting estimates have severe limitations (ibidem), the estimates collected by press monitorings such as the ERM are more reliable. The most valid data, however, systematic official statistics on the employment impact of relocation, are not collected anywhere in the world today. As a result, academics who nevertheless want to use official statistical data resort to proxies of indicators of relocation activity, such as trade data, FDI flows and input-output tables (Van der Zee et al., 2007). However, these indicators only measure the indirect effects of relocation and are affected by a number of other factors making hard conclusions difficult to draw.

## **7 Regulation**

As mentioned in section 6.2, regulation forms an important trade barrier in the commerce sector. Important regulations in retail affecting productivity growth are related to store opening hours, land use, and consumer protection. Regulation that is also highly relevant for wholesale deals with transportation, food quality and safety, labour, and competition (e.g. pricing restrictions and marketing / advertising restrictions).

### **Store opening hours**

Store opening hours is an important issue as lifestyles and needs of consumers have changed drastically over the past decades. In addition, working patterns have changed, more women are working, and working hours have changed. There is an increasing need for 24 hour shopping, seven days a week. Shopping is more and more a leisure activity (EMCC, 2007). Since the deregulation of the regulation on opening hours in the nineties, opening hours of shops have indeed been increased (Jacobsen, 2002). Nevertheless, the regulation on opening hours differs extensively among European countries, from countries like Sweden and Latvia with no restrictions to countries like Finland and Greece which restrict opening hours during the week. Differences in regulation on opening hours are in particular important in relation to planning logistics and personnel (EMCC, 2007). In some countries legislation on opening hours interferes with legislation on working time and the solutions for this differ between countries and between companies. An often used solution is the deployment of part-time workers and/or flexible workers (Jacobsen, 2002).

### **Location and land use**

Location is very important for retailers and laws on land use could be a barrier in finding and using the best locations. In almost all European countries, spatial distribution of stores is a matter of legislation. Legislation on location can cover the size of the store as well as the type of store (Jacobsen, 2002; McKinsey / Ministry of Economic Affairs, 2007). Restrictions on land use can hinder the creation of new stores as land might become very expensive and the value of old store might be valued too high because of the land they occupy. Restrictions on land use also hamper the establishment of large stores, needed for economies of scale (EMCC, 2007; McKinsey / Ministry of Economic Affairs, 2007)).

One of the main trends in retail in the past decades was the establishment of large out-of-town supermarkets and hypermarkets. Realising a new store outside the city centre has several benefits, including more store space, better parking facilities, and less congestion problems. Nevertheless, policymakers are also concerned that these large stores outside the city centre could have an impact on the vibrancy of the city centre and on the chances of survival for the smaller, local stores. Shops are part of the social fabric of a local community and shops are important for a lively neighbourhood. For this reason, governments have introduced regulations that encourage retail development in town centres, but often also place constraints on the development of out-of-town stores. Directly related to this is the aim of protecting small retail shopkeepers from the increasing competition of large stores. The French Loi Royer, introduced in 1973, explicitly had this intention (Bertrand & Kramarz, 2001). A study by Griffith and Harmgart (2008) on the effects of planning regulation on the UK supermarkets confirms that location regulation can function as an entry barrier. A study by Schivardi and Viviano (2008) shows that in Italy regulation on land use indeed functions as an entry barrier and that incumbents greatly benefit as they can increase their profit margins and prices and lower their investments in ICT. A result is that efficiency and productivity is reduced, while consumers have to pay more.

Various studies analyse the effects of location regulation on the labour market. For example, Bertrand and Kramarz (2001) showed that stringent regulation on large shops in France has had a negative impact on employment. According to Schivardi and Viviano (2008), deregulation may lead to lower employment for a given level of output since it increases productivity. However, fewer constraints and higher productivity may also lead to lower prices, greater demand and therefore higher employment. These studies show that reforming labour markets is not enough to stimulate employment growth, also liberalising product market regulations are an important mechanism.

### **Consumer protection**

Consumer protection is laid down in a new directive on certain aspects of the sale of consumer goods and associated guarantees (EMCC, 2007). Privacy of consumers is controlled by the Data Protection Directive (EuroCommerce, Annual Report 2007/Action Plan 2008).

### **Food quality and safety**

Other important regulations deal with animal feed and food safety. These regulations require tracking and tracing of food products from their original source through the whole process of purchasing, production, and distribution. This requires end-to-end visibility in the supply chain and therefore it is important that actors collaborate intensively in their business process and introduce the right technologies and analytical tools in the supply chain (EMCC, 2007). Also the food labelling policy is important for the commerce sector as it restricts the possibility of making claims on foods. Policies regarding the consumption of alcohol and tobacco are also relevant as they place restrictions on advertising and sales to youngsters (EuroCommerce, Annual Report 2007/Action Plan 2008).

### **Transportation**

Logistics to shops in urban areas have to deal with major traffic problems, due to traffic congestion, but also to regulatory restrictions. Regulation on transportation and logistics deals with issues such as delivery times and access to city centres for specific vehicles (extra large or noisy vehicles), but also road pricing (McKinsey / Ministry of Economic Affairs, 2007). It is one of the main issues on the agenda of commerce federations such as EuroCommerce.

### **Labour**

Labour regulations are very important for a labour-intensive sector such as the commerce sector. Labour regulations are organised at the national level, but also at the EU level minimum requirements regarding working and employment conditions and the information and consultation of workers have been defined. Nevertheless, some countries, e.g. the UK, have opted out on such policies. The commerce sectors strives for more flexibility in the labour market to be able to address the needs for labour in a 24/7 economy. The European Commission acknowledges this need for more labour flexibility, while at the same time providing employees with appropriate levels of security. This is the concept of flexicurity (EuroCommerce, Annual report 2007/Action plan 2008). The European Commission published a Green Paper on 'Modernising labour law to meet the challenges of the 21<sup>st</sup> century' in November 2006. This was followed by an extensive public consultation, which resulted in some 450 official responses to the Green Paper. These responses were published by the European Commission in October 2007. The overall conclusion of the consultation was that the concept of flexicurity is widely acknowledged and that labour regulation is considered as an important instrument to ensure greater flexibility as well as to provide a sense of security to workers in a world of rapid change (EC, 2007a).

A study about labour market flexibility, innovation, and organisational performance focused on the level of labour market flexibility in small open economies, including Ireland, Finland, the Netherlands, Switzerland, and Greece (Tsipouri et al., 2003). The results of this study indicate that the Netherlands and Switzerland are the most flexible countries. Part-time work is very widespread in the Netherlands and to a lesser extent in Switzerland, but almost absent in Greece, Ireland, and Finland. In the Netherlands, both fixed-term contracts and temporary agency work are important, while in Finland and Greece fixed-term contracts are more important and in Ireland temporary agency work is more important. The study also showed

that relatively high labour market flexibility does not necessarily come together with a low degree of labour protection. Switzerland has a relatively low degree of protection (ranking 6 on OECD's list), but the Netherlands has a moderate degree of protection (ranking 9 of the OECD countries). The degree of protection is very low in Ireland (4<sup>th</sup> lowest in OECD) and very high in Greece (15<sup>th</sup> position). Greece is an exceptional case as it is formally the least flexible country, but in practice it is the second most flexible, because of violation of labour legislation, a large informal economy, and a high percentage of migrant labour.

All countries studied have introduced new legislations regarding flexibility since the 1990s, but the study indicates that formal laws are relatively less relevant than behaviour, mutual understanding, and informal rules. For example, in the Netherlands, the social dialogue between employers' organisations and trade unions is the main instrument to enhance labour market flexibility, more than extensive and detailed regulation. In Greece, on the other hand, several legislations were introduced but not implemented and enforced, due to strong union opposition, but informally, Greece is a very flexible country (Tsipouri et al, 2003).

### **Competition**

The competition agencies in the EU Member States and at the European Commission closely follow the consolidation and concentration in the sector. In relation to that, several governments in the EU have installed policy initiatives to support smaller wholesalers and retailers. Initiatives include restricting the establishment of new shops, providing financial help to SMEs to encourage investments and training, reducing tax burden on SMEs, encouraging cooperative behaviour among SMEs, and providing special protection to particular sub-sectors. Another way of controlling power in the supply chains is introducing regulations on contracts, credit days allowed, type of discounts allowed, and the ability to sell products below cost prices. Especially in Central European countries, governments are trying to protect local suppliers and retailers from the large wave of multinationals setting up new enterprises in these countries (EMCC, 2007).

A next step in reaching a European Internal Market is the adoption of the Services Directive in 2006. This directive should remove barriers to companies that want to set up a branch abroad or provide its services across the border. It will help to create fair competition among companies, especially in the commerce sector (EuroCommerce, Annual Report 2007/Action Plan 2008). Another important issue in realising the Internal Market is harmonising payment systems and creating an internal market for payments (EuroCommerce, Annual Report 2007/Action Plan 2008).

## 8 SWOT

SWOT analysis is a tool in management and strategy formulation, used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a project, business venture or – as in this case – a sector, the latter being defined within a well-described geographical entity. The aim of a SWOT analysis is to identify the key internal and external factors that are important to achieving a particular objective or set of objectives. Strengths and weaknesses are internal factors that create or destroy value. For a company these can include assets, skills or resources that a company has at its disposal, compared to competitors. Opportunities and threats are external factors that create or destroy value. They emerge from either the company dynamics of the industry/market or from demographic, economic, political, technical, social, legal or cultural factors (STEEP or DESTEP, see also chapter 9). When applied to the sector level, SWOT has a similar meaning, albeit on a higher, more aggregated level. The overview of strengths, weaknesses, opportunities and threats (SWOT) for the distribution and trade sector has been split between retail and wholesale. Tables 8.1 and 8.2 present the strengths, weaknesses, opportunities, and threats as identified for both sub-sectors. The SWOT analysis presented is the result of an intensive workshop discussion which was subsequently validated and amended in two external workshops, including the final workshop in Brussels.

### **Retail**

Important strengths for the retail are realising economies of scale and the focus on improving efficiency. This enables the sector to improve profitability and competitiveness needed in the fierce competition of today. Another important strength is the advanced application and use of ICT tools. Retailers have integrated ICT in their daily business, which has led to more efficiency and substantial cost savings on the one hand and a more intense relation with the customer and better service to the customer on the other hand. The integration and application of ICT tools will also in the future remain important and extend more towards e-commerce tools. Nevertheless, an important threat here is the average scale of retail. Most firms in the sector are very small firms and these firms may lack the resources and capacity to integrate new technologies. Although the retailers' bargaining power has increased and more economies of scale are realised, the fierce competition among retailers puts margins under pressure. Despite the low margins, especially high volume retailers are able to realise high profits. An important weakness deals with the extreme labour flexibility. Retailers strive continuously for more labour flexibility to increase competitiveness and labour productivity, but the downside is that this could lead to less motivated workers because of less attractive working conditions and as a result poor service quality and unsatisfied customers. This is an important weakness as one of the main opportunities for the sector lies in competition based on services and customer relations and hence improving profit margins. Focus on the service to the customer and on knowing your customer is key for the future of retail. Through royalty cards and own-branding, retailers have an excellent tool to build strong customer relations and customer loyalty. Important opportunities are advanced customer relation management and mass customisation. This will be driven by the further development and application of e-commerce, especially through multi-channel strategies and sophisticated websites. Smart integration of ICT and e-commerce tools is needed because e-commerce can be an important threat to retailers as well. Manufacturers can sell directly to consumers using the Internet, which can lead to disintermediation of retailers. If retailers fail to turn around their competition strategies towards competition based on customisation, customer relations and service, an important threat to the sector could be that price competition ends in a race to the bottom. The margins can get under pressure even more because of higher prices of basic materials (such as oil and minerals) and agricultural products. From the society perspective,



an opportunity is that retailers are often property owners as well. When stimulating the establishment and location of retailers in disadvantaged areas, through developing their property, retailers can support the development of these areas.

### **Wholesale**

As in retail, the advanced adoption and use of ICT tools has helped the wholesale sector in realising efficient supply chain management. It is one of the main strengths of the sector. Nevertheless, important threats to the efficient supply chain management are the increased transport costs and not fully reliable delivery schedules because of higher oil prices, problematic transport infrastructure, restrictive regulation on urban logistics, and road pricing. As most wholesale companies are rather small, it might be difficult for them to integrate extended ICT tools and supply chain management tools, simply because they lack resources and capacity to do this. The position of the wholesale sector is continuously under pressure. There is fierce competition from manufacturers, retailers, and service providers. Wholesale functions are integrated by retailers and by manufacturers, while at the same time logistics related functions are outsourced to transport and logistics companies. In addition, e-commerce enables suppliers to deliver directly to retailers and consumers, which can lead to disintermediation of the wholesale function. Wholesale is not a unified concept, as wholesale is present in many businesses and sectors. Hence, wholesale is not as organised as retail is. This can be a weakness preventing wholesale taking a stand in the commerce value chain. Another weakness of the sector is that it has difficulties showing other parties its value added. Therefore, a very important opportunity for wholesale companies for strengthening their position in the value chain is developing value-added services and one-stop shopping to retailers and manufacturers, including inventory management, training, technological advice, credit facilities, and a broad assortment. Although e-commerce can be a major threat, it also offers good opportunities as wholesale companies can use the Internet to deliver a broad or specialised assortment directly to consumer and professional users.

**Table 8.1: SWOT analysis retail trade**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Efficiency</li> <li>• Economies of scale : driven by concentration and search for growth</li> <li>• Bargaining power towards suppliers</li> <li>• Retailer brands</li> <li>• Customer loyalty through loyalty cards and own brands</li> <li>• Focus on core activities, outsourcing of logistics, inventory management</li> <li>• Advanced application and use of ICT tools</li> <li>• Flexibility in workforce and employment is standard practice</li> </ul>	<ul style="list-style-type: none"> <li>• Many small companies, lacking resources and capacity</li> <li>• Low margins</li> <li>• Despite bargaining power and economies of scale no improvement in economic / financial performance in relation to suppliers</li> <li>• Gender inequality: many female employees, earning less than male employees</li> <li>• Low pay – low skills jobs</li> <li>• Extreme labour flexibility: less motivated workers, poor service quality, unsatisfied customers</li> <li>• Gap in labour productivity between USA and Europe</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• More collaboration to increase economies of scale in sourcing, but also in marketing and sales</li> <li>• Retailer brands</li> <li>• Cooperative brand development with suppliers</li> <li>• Co-branding</li> <li>• Experience-shopping</li> <li>• Competition based on services and customer relations: improved profit margin</li> <li>• Advanced customer relation management</li> <li>• Full mass customisation</li> <li>• Including productivity of consumers</li> <li>• E-commerce: multi-channel strategies and sophisticated websites</li> <li>• Location-based marketing</li> <li>• RFID technology: more efficient supply chain management, self check-out, reduce theft, decrease out –of-stock</li> <li>• Green retailing</li> <li>• Lifestyle changes</li> <li>• Ageing society: different shopping demands</li> <li>• Liberalisation of trade regulation and trade barriers, less restrictions on FDI</li> <li>• Emerging markets: new markets, expansion of business</li> <li>• Increasing income per capita</li> <li>• Focus on service: different skills of workers, improved image of sector</li> <li>• Focus on lean retailing: increasing productivity, lower costs, better service</li> </ul>	<ul style="list-style-type: none"> <li>• Fierce international competition, also expected from firms from India and China coming to EU</li> <li>• Constant search for growth: ‘unfair’ practices of High Volume Retailers</li> <li>• Focus on Price competition: race to the bottom</li> <li>• Driven by e-commerce disintermediation of retailers: producers sell directly to consumers</li> <li>• Brand-related experiences created by manufacturers: integrating retail function</li> <li>• E-commerce: obstacles related to trust, efficient and reliable payment systems, reliable delivery of goods, average order sizes</li> <li>• E-commerce: consumers becoming retailers (auctions and trading places)</li> <li>• E-commerce: consumers better informed, reduced value of and need for retail employees</li> <li>• Regulatory environment: restrictions on location, labour regulation, regulated shop opening hours: strict and not harmonised in EU</li> <li>• Mature domestic markets</li> <li>• Emerging markets: weak infrastructure, restrictions on FDI, location etc, political problems, economic imbalances, limited supply of qualified employees</li> <li>• Cultural differences and local tastes can be barriers in global expansion</li> <li>• Ageing of labour force: in retail large share of young workers, low pay</li> <li>• High prices of natural resources in food</li> <li>• Increase in transport costs: higher oil prices, problematic transport infrastructure, restrictive regulation on urban logistics, road pricing</li> </ul>

**Table 8.2 SWOT analysis wholesale trade**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Advanced adoption and use of ICT tools for efficient supply chain management</li> <li>• High labour productivity</li> <li>• International sourcing combined with knowledge of local needs</li> </ul>	<ul style="list-style-type: none"> <li>• Present in many different business and sectors, low level of organisation</li> <li>• Many small companies</li> <li>• Difficulties in showing value added</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• More collaboration in global sourcing networks to increase economies of scale + buyer power</li> <li>• Focusing on core activities and outsourcing transport, transfer and warehousing to distribution centres</li> <li>• Retailers are outsourcing logistics, inventory management</li> <li>• Offering value-added services to retailers: inventory management, training, technological advise, credit facilities etc</li> <li>• One-stop shopping for retailers: broad assortment</li> <li>• ICT tools enabling process innovation and efficient supply chain management: direct linkages to clients, tracking and tracing, just-in-time deliveries</li> <li>• E-commerce: disintermediation of retailers provides options for wholesale to deliver broad or specialised assortment to consumers and professional users</li> <li>• Liberalisation of trade barriers</li> <li>• Emerging international markets: international sourcing + acting as intermediaries for SMEs who lack capacity to operate internationally</li> <li>• Regulation on food quality and safety: tracking and tracing systems</li> <li>• Green retailing = green supply chain control and management</li> </ul>	<ul style="list-style-type: none"> <li>• Fierce and complex international competition: from manufacturers, retailers and service providers</li> <li>• Power of retailers is increasing continuously</li> <li>• Vertical integration of retailers: wholesale function is removed</li> <li>• Retailer brands getting more important</li> <li>• Driven by e-commerce disintermediation of wholesale function: producers sell directly to consumers</li> <li>• Retailers supply professional users</li> <li>• E-commerce + mass customisation: small order sizes, higher inventory needed, more transport needed</li> <li>• Electronic procurement portals used by retailers</li> <li>• Increase in transport costs: higher oil prices, problematic transport infrastructure, restrictive regulation on urban logistics, road pricing</li> <li>• Informal trade barriers will become more important</li> <li>• Regulation of food quality and safety: complex and costly transparent supply chain requirements</li> </ul>

## 9 Drivers

### 9.1 Identifying sectoral drivers: methodology and approach

The methodological framework as defined by Rodrigues (2007) serves as the starting point for the identification of drivers. Rodrigues identifies three main driver categories: economic, technological and organizational drivers, with the economic dimension representing the main trends in demand and supply, the technological dimension covering the main trends in process and product innovation (including services) and the organizational dimension representing main trends in job functions (conceptual, executive). The Rodrigues' approach in principle enables the identification of drivers, and especially so at the meso (sector) and micro (firm or company) level. The search and identification procedure of drivers itself is less well defined, however. Implicitly it is assumed that expert opinion and desk study are sufficient tools to come up with a relevant and plausible set of drivers at the sector level.

During the first stage of the project, a methodological tool (approach) has been developed to facilitate and help the identification and further delimitation of drivers, to arrive at a set of key drivers. Apart from expert opinion mobilised and managed as discussion panel (in a similar manner as a SWOT analysis is usually organised), this approach strongly builds on the findings of existing foresight and other future studies. By consistently linking the search for drivers with the findings in existing foresight and other future studies, a more coherent and all-embracing methodology to finding sector-specific drivers can be deployed.<sup>17</sup> This so-called 'meta-driver' approach of identifying main sectoral drivers starts from a more generic list of meta-drivers derived from a literature survey, and subsequently in a step-wise manner delimits the drivers to a set of most relevant and credible drivers. It does so by combining adequate expert (sector) knowledge in a panel setting. By subsequently asking the expert panel to score the different drivers on a range of characteristics, including relevance, uncertainty, and expected impact (similar to a SWOT procedure), a corroborated and conclusive list of sector-specific drivers can be derived. The meta-driver approach hence enables filtering out in a systematic and consistent way meso and possibly micro (sector-specific) as well as the macro (economy-wide) trends and developments judged relevant and important to the sector, directly and indirectly.

The meta-driver approach includes the following five steps:

Step 1. Drawing up of a list of relevant generic or meta-drivers based on literature review and expert knowledge (check-list: rows)

Step 2. Designing a list of key questions in order to identify the sector relevance and other properties of meta-drivers at sector level (check-list: columns)

Step 3. Filling in the check-list matrix: which meta-drivers do matter most for the sector?

Step 4. Which drivers do matter most for jobs and skills?

Step 5. Does the tailor-made list herewith cover all relevant sectoral drivers, i.e. are there any sector-specific drivers missing (check on completeness)

Arguments in favour of the use of the 'meta-driver' approach are:

- The ability and opportunity to use the rich potential of a multitude of already available studies on drivers, determinants of change and key trends

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<sup>17</sup> Common ways to rank trends and drivers are the DESTEP (Demographic-Economic-Social-Technological-Ecological-Political) and STEEP (Social-Technological-Economic-Ecological-Political) categorisations. For our purpose, slightly altered DESTEP definitions are used to reflect the embracing dimension of analysis.

- Circumventing the risk of a too narrow focus on the sector per se while acknowledging sector-specificity, and avoiding the risk of analyzing sectors as if they were isolated (cf the difference between ‘general equilibrium’ and ‘partial equilibrium’ approaches)
- Guaranteeing overall consistency, coherence and completeness, as well as warranting a same point of departure important across lots/sectors – i.e. a way of integral assessment, making sure that all important factors are systematically taken on board.

An alternative and second way to arrive at a list of main sector-specific drivers of change is to start with a SWOT and subsequently translating the Opportunities and Threats part into sector-specific drivers. The SWOT is used as a tool to verify and check the resulting list of drivers. By combining the results of both the “from meta-drivers to sector-drivers” and the “from SWOT to sector-drivers” exercises a complete and consistent list of sector-specific drivers can be derived.

## 9.2 Identification and discussion of sectoral drivers

Most of the meta-drivers are relevant to the distribution and trade sector. This is mainly because the sector is a very open and internationalised sector, which is rather sensitive to developments and changes in society and economy.

Like for many other sectors, *ageing* is a relevant driver as the market might change because of different needs and demand by ageing consumers. Ageing also affects the labour force. The commerce sector (and especially the retail sector) has a relatively young and therefore cheap labour force, but the supply of young and cheap labour is decreasing. The labour force will decline and the sector will be forced to hire older employees, which will have different wages and different employment needs. Growth of population can result in a larger labour force available. Growth of the population will mainly result from migration as in general birth rates are rather low in Europe. Countries can use migration policies to actively allow more people to join the workforce. While ageing is a serious issue for the European society, another major demographic issue is the unemployed and low educated youth and therefore lacking money to spend. Addressing the shortage of labour could come from immigration, training older people for employability, as well as from training low educated youth, who are not active at the labour market.

Changes in *the income per capita* and household as well as in *income distribution* are certainly relevant for the commerce sector. The more people earn, the more they can spend on consumer goods. Sharper distinctions between high and low income can result in more distinct market segments, including for example premium services as well as discounting formulas. Changes in income will affect the volume of employment as growth or decline in turnover will have effects directly on the number of people needed in the sector. The development of more different market segments will affect the skills requirements.

The commerce sector is already a much internationalised sector and *globalisation and internationalisation* will also heavily affect the sector in the future. Competition is increasingly taking place at the global level, where more markets will open up for international players. Hence, retailers are competing internationally and source their goods globally. As the sourcing of goods is internationalised, wholesale companies will internationalise as well. Moreover, they can act as intermediaries for SMEs who lack capacity to operate internationally. Emerging economies drive more demand and growth, especially in

the BRIC (Brazil, Russia, India and China) countries, despite the sometimes high uncertainty about regulation, infrastructure, consumer expectations, cultural differences etc. Successful international operations will result in higher growth and more employment, although operating in markets outside Europe will not really result in more employment in Europe. Further internationalisation and globalisation may require different skills from employees, as they will need to have a more international attitude, i.e. be able to communicate internationally, understand cultural differences etc. As in several other sectors, *global and regional sourcing networks* are important for the commerce sector. Some goods will be sourced regionally, others globally, but this will differ between sub-sectors as well. Substantial impacts on employment are not expected as relocation of jobs outside Europe in global sourcing networks can be levelled by growth of jobs in regional sourcing networks.

There is a relatively large density of retailers in the EU, bringing strong *competition*. The many SMEs in the sector will have difficulties in competition, in attracting labour, in attracting financial capital, and in integrating new technologies and organisational changes needed for growth. At the same time there is this concentration tendency in the sector. Further concentration increases the scale of operations for commerce firms, enabling further efficiency gains and offering sufficient resources and capacity for integrating new technologies and carrying out organisational changes needed for growth.

Main drivers for the commerce sector are *mass customisation and lifestyle changes*. It is expected that mass customisation will be fully adopted in the future. Supported by the application of ICT tools, retailers will know more about their customers and will build up close relations with them. Based on this information and the close relations, retailers will make offerings tailored to the individual needs of the customer. The strategy of mass customisation is the alternative for fierce price competition and is needed to increase profitability and competitiveness and therefore growth in the sector. Successful implementation of this strategy will result in growth and more jobs. In addition, it will also affect employment composition and the type of skills, as it will require, for example, 24/7 availability of services and a flexible workforce, a more service-oriented attitude, and more ICT and marketing knowledge and expertise. Lifestyle changes will certainly impact the market, as consumers will need new products addressing, e.g. *healthier living*. In addition, consumers will pay more attention to health-related characteristics of existing products, as well as ethical issues, quality, and safety. Successfully addressing the lifestyle changes with new products and services will result in growth and additional employment. It will also affect employment skills as the focus on lifestyle products and services will require educated employees with better knowledge of health, product characteristics, and production processes and better developed competences in advising and informing customers. Lifestyle changes do not only affect the demands from customers, but also the employees of the sector, as they will increasingly try to find a satisfying work-life balance. In addition to the increased attention for healthy living, there will also be an increasing demand for *environmentally friendly / organic* products. In some countries, for example Germany, this is already a very important market, but it will increasingly become important in other countries as well. This focus on environmentally friendly products and *sustainability* is and will be an important market for the sector. Successfully addressing this market will result in growth and therefore more jobs. It will also influence the skills of the employees, as it will require better knowledge of sustainability issues and the sustainable characteristics of the products and production processes. Although healthier living and sustainability are important issues for the sector, it is expected that in the short term these issues will be less obvious or relevant for some new Member States.

A specific issue in relation to changing market demands is the growth of *ethnic markets*. Europe is increasingly multicultural with 'ethnic minorities' driving the demand for products and services tailored to their specific needs. These markets can be served by national retailers offering products and services tailored for the multicultural markets. However, the increasing demand for ethnic products and services also drives the establishment of new, often small, shops by the ethnic minorities themselves. The multicultural society influences employment as it can affect the composition of employment, but also because it requires different skills in addressing multicultural customer demands.

Very important drivers for the commerce sector are the *development, application, and use of ICT related tools*. Over the past 20 years, the integration of ICT has resulted in increased efficiency and profitability. Also for the future ICT will be important. ICT will help to better understand the customers, to further optimise the supply chain, to build up closer relations with the customers, to design and offer customised products and services, to optimise shop floor operations, to increase efficiency, and to save costs. On the one hand, the application of ICT tools can result in job losses, because of increased efficiency and labour productivity. On the other hand, the application of ICT tools can improve the competitiveness and therefore growth of the sector, which will lead to new jobs. The same holds for the Internet. E-commerce will become more important as a marketing and sales channel, for business to consumers and for business to business. It will bring new business models and organisational structures. It will also result in changes in the employment composition and skills as ICT will require educated employees with a good ICT skills, more service-oriented as well as flexibility and 24/7 availability. For the wholesale sector an important strategy for improving its competitiveness and strengthening its position in the value chain will be developing value added services. These could include inventory management, credit facilities, training, and technical advice. When successful, the sector will grow and more jobs will be created. It will also influence the skills needed, as different competences will be needed, e.g. in the field of training and financial management.

As logistics and transport are very important in the commerce sector, a main (but also uncertain) driver will be the *availability and price of oil and energy*. Limited availability and high prices will increase transport costs drastically, especially for the wholesale sector which often includes transport functions. Moreover, increases in transport costs will also be transferred to the retailers in higher purchasing prices and lower margins. As this could lower the sector's growth, it could affect the number of jobs. Also the availability and price of other natural resources, especially agricultural products, could become an important driver for the sector. This will increase the production costs of many food and other products and put margins under pressure. It will hinder the growth of the sector and hence the number of jobs.

As the commerce sector is already an internationalised sector, *liberalisation and opening up of markets* is a relevant driver. Fewer trade barriers will help the sector in operating successfully in the international market. This is important at both the global and European level. However, the sector already operates extensively at the international market, including the new Member States, and has broad experience in dealing with national and international institutions. Liberalisation will help the sector to expand its business and to grow, which will affect employment in the sector. Regarding *regulation*, the most important regulation is related to labour. The commerce sector is very labour-intensive, especially in retail, and strives for more flexibility to be able to address the needs for labour in a 24/7 economy. The extent to which this can be realised depends heavily on labour market regulation. Labour

regulation is nationally defined with minimum requirements at the EU level. Important differences between countries exist. Further restrictions on flexibility of labour may hinder the growth of the sector and impact the volume and composition of the employment. On the other hand, developing regulation that enhances flexicurity offers clarity, stability and security for employees and enterprises in the sector. Regulation on opening hours is also relevant in this respect, as it can support or hinder the development of 24/7 economy. The question is whether a full 24/7 economy is desirable from a society and social perspective. Environmental regulation can be rather relevant in relation to the transport, as it can restrict the urban logistics and increase the costs of transport because of road pricing. Nevertheless, the effects on employment will probably not be substantial. Regulation on security and safety can be important in relation to the quality and safety of food products. It requires transparent supply chains, which requires substantial investments in supply chain management tools, supply chain infrastructure, and in skills of employees. Similar for environmental regulation, a substantial impact on the volume and composition of employment is not expected.



**Table 9.1 From meta-drivers to sector-specific drivers. Relevant check-list questions**

Category	Driver	Is this driver relevant for the sector?	How relevant is this driver for the sector?	How uncertain is this driver for the sector?	Are substantial impacts expected on the volume of employment?	Are substantial impacts expected on employment composition?	Are substantial impacts expected on new skills?	Short, medium or long run impact? <sup>18</sup>			Are substantial differences expected between (groups of) countries?	Are substantial differences expected between sub-sectors?
		Y / N	Scale 0-10	Scale 0-10	Y / N	Y / N	Y / N	S	M	L	Y / N	Y / N
Ageing / demographics	<b>Ageing - Adapt to the market demands of an ageing and more diversified society</b>	<b>Y</b>	<b>8</b>	<b>0</b>	<b>N</b>	<b>Y</b>	<b>Y</b>			<b>X</b>	<b>N</b>	<b>N</b>
	<b>Ageing – declining labour force</b>	<b>Y</b>	<b>8</b>	<b>3</b>	<b>Y</b>	<b>Y</b>	<b>N</b>		<b>X</b>	<b>X</b>	<b>Y</b> <sup>19</sup>	<b>N</b>
	Population growth (birth and migration)	Y	7	5	Y	Y	N			X	Y <sup>20</sup>	N
Economic	<b>Income per capita and household</b>	<b>Y</b>	<b>8</b>	<b>7</b>	<b>Y</b>	<b>N</b>	<b>N</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>Y</b>	<b>N</b>
	<b>Income distribution</b>	<b>Y</b>	<b>8</b>	<b>7</b>	<b>Y</b>	<b>N</b>	<b>Y</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>Y</b>	<b>N</b>
Globalisation	Outsourcing & offshoring	Y	7	5	N	N	Y	X	X	X	N	N
	<b>Increasing global competition</b>	<b>Y</b>	<b>9</b>	<b>2</b>	<b>Y</b>	<b>N</b>	<b>Y</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>N</b>	<b>N</b>
	<b>Emerging economies driving global growth (new market demand, especially BRICs)</b>	<b>Y</b>	<b>9</b>	<b>5</b>	<b>N</b>	<b>N</b>	<b>Y</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>N</b>	<b>N</b>

<sup>18</sup> Short = 0-3 years; medium = 3-7 years; long = > 7 years. All three categories may apply.

<sup>19</sup> National migration policies can be used to allow more people to join the workforce. Some differences in demographic composition between EU countries (North-South, West-East).

<sup>20</sup> See footnote 14.

Category	Driver	Is this driver relevant for the sector?	How relevant is this driver for the sector?	How uncertain is this driver for the sector?	Are substantial impacts expected on the volume of employment?	Are substantial impacts expected on employment composition?	Are substantial impacts expected on new skills?	Short, medium or long run impact? <sup>18</sup>			Are substantial differences expected between (groups of) countries?	Are substantial differences expected between sub-sectors?
		Y / N	Scale 0-10	Scale 0-10	Y / N	Y / N	Y / N	S	M	L	Y / N	Y / N
Cultural values	Global / regional production networks (dispersed production locations, transport)	Y	7	3	N	N	N	X	X	X	N	Y <sup>21</sup>
	Counter-trend regionalism / protectionism	Y	7	7	N	N	N	X	X	X	Y	N
	<b>Increasing market segmentation (tailor made production, mass customization)</b>	<b>Y</b>	<b>10</b>	<b>0</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>N</b>	<b>N</b>
	<b>Lifestyle changes</b>	<b>Y</b>	<b>10</b>	<b>2</b>	<b>Y</b>	<b>N</b>	<b>Y</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>Y<sup>22</sup></b>	<b>N</b>
	<b>Increasing demand for environmentally friendly / organic products</b>	<b>Y</b>	<b>10</b>	<b>4</b>	<b>Y</b>	<b>N</b>	<b>Y</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>Y<sup>23</sup></b>	<b>N</b>
	<b>Advances in IT impacting on organizational structures &amp; new business models</b>	<b>Y</b>	<b>9</b>	<b>0</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>N</b>	<b>N</b>
	<b>Internet changing production and consumption patterns (e-business; etc.)</b>	<b>Y</b>	<b>9</b>	<b>0</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>N</b>	<b>N</b>
R&D and product and process												

<sup>21</sup> Global and regional at the same time, for example in fashion (Zara): basic assortment globally sourced, two-weekly changes in the assortment delivered by regional suppliers.

<sup>22</sup> At the short term in new Member States probably less obvious / relevant.

<sup>23</sup> See footnote 18.

Category	Driver	Is this driver relevant for the sector?	How relevant is this driver for the sector?	How uncertain is this driver for the sector?	Are substantial impacts expected on the volume of employment?	Are substantial impacts expected on employment composition?	Are substantial impacts expected on new skills?	Short, medium or long run impact? <sup>18</sup>			Are substantial differences expected between (groups of) countries?	Are substantial differences expected between sub-sectors?
		Y / N	Scale 0-10	Scale 0-10	Y / N	Y / N	Y / N	S	M	L	Y / N	Y / N
Natural resources	New types of work organisation (teams-based, sociotechnique, etc.)	Y	7	6	N	N	Y	X	X	X	N	N
	<b>New/additional value-added services</b>	Y	8	3	Y	Y	Y	X	X	X	N	Y <sup>24</sup>
	Other (sector specific)											
	<b>Availability (and price developments) of oil and energy</b>	Y	8	8	Y	N	N	X	X	X	N	Y <sup>25</sup>
Institutional / Political	<b>Availability and price of other natural resources</b>	Y	8	8	Y	N	N	X	X	X	N	Y <sup>26</sup>
	Trade and market liberalisation (national level)	Y	7	4	Y	N	N	X	X	X	Y	N
	EU integration – deepening (single European market etc.)	Y	7	4	Y	N	N	X	X	X	N	N
	EU integration – broadening (bigger domestic market)	N										
	Quality of institutions (judiciary, transparency, lack of corruption, viable business climate, structural rigidities)	N										
	<b>Labour market regulation</b>	Y	8	7	Y	Y	N	X	X	X	Y	Y <sup>27</sup>

<sup>24</sup> Especially important for wholesale.

<sup>25</sup> Could be more relevant in wholesale than in retail if wholesale includes transport function.

<sup>26</sup> Especially in food.

Category	Driver	Is this driver relevant for the sector?	How relevant is this driver for the sector?	How uncertain is this driver for the sector?	Are substantial impacts expected on the volume of employment?	Are substantial impacts expected on employment composition?	Are substantial impacts expected on new skills?	Short, medium or long run impact? <sup>18</sup>			Are substantial differences expected between (groups of) countries?	Are substantial differences expected between sub-sectors?
		Y / N	Scale 0-10	Scale 0-10	Y / N	Y / N	Y / N	S	M	L	Y / N	Y / N
	Environmental regulation	Y	7	5	N	N	N	X	X	X	Y	Y <sup>28</sup>
	<b>Security and safety regulation</b>	<b>Y</b>	<b>8</b>	<b>2</b>	<b>N</b>	<b>N</b>	<b>Y</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>Y</b>	<b>N</b>
	<b>Opening hours regulation</b>	<b>Y</b>	<b>8</b>	<b>5</b>	<b>Y</b>	<b>N</b>	<b>N</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>Y</b>	<b>Y<sup>29</sup></b>

<sup>27</sup> Probably more relevant for retail than for wholesale.

<sup>28</sup> Especially relevant in relation to local transport, can be more relevant for wholesale than for retail.

<sup>29</sup> More relevant for retail than for wholesale.

## Part II.

### Future Scenarios and Implications for Jobs, Skills and Knowledge

## Part II. Future Scenarios and Implications for Jobs, Skills and Knowledge - Guide to the reader

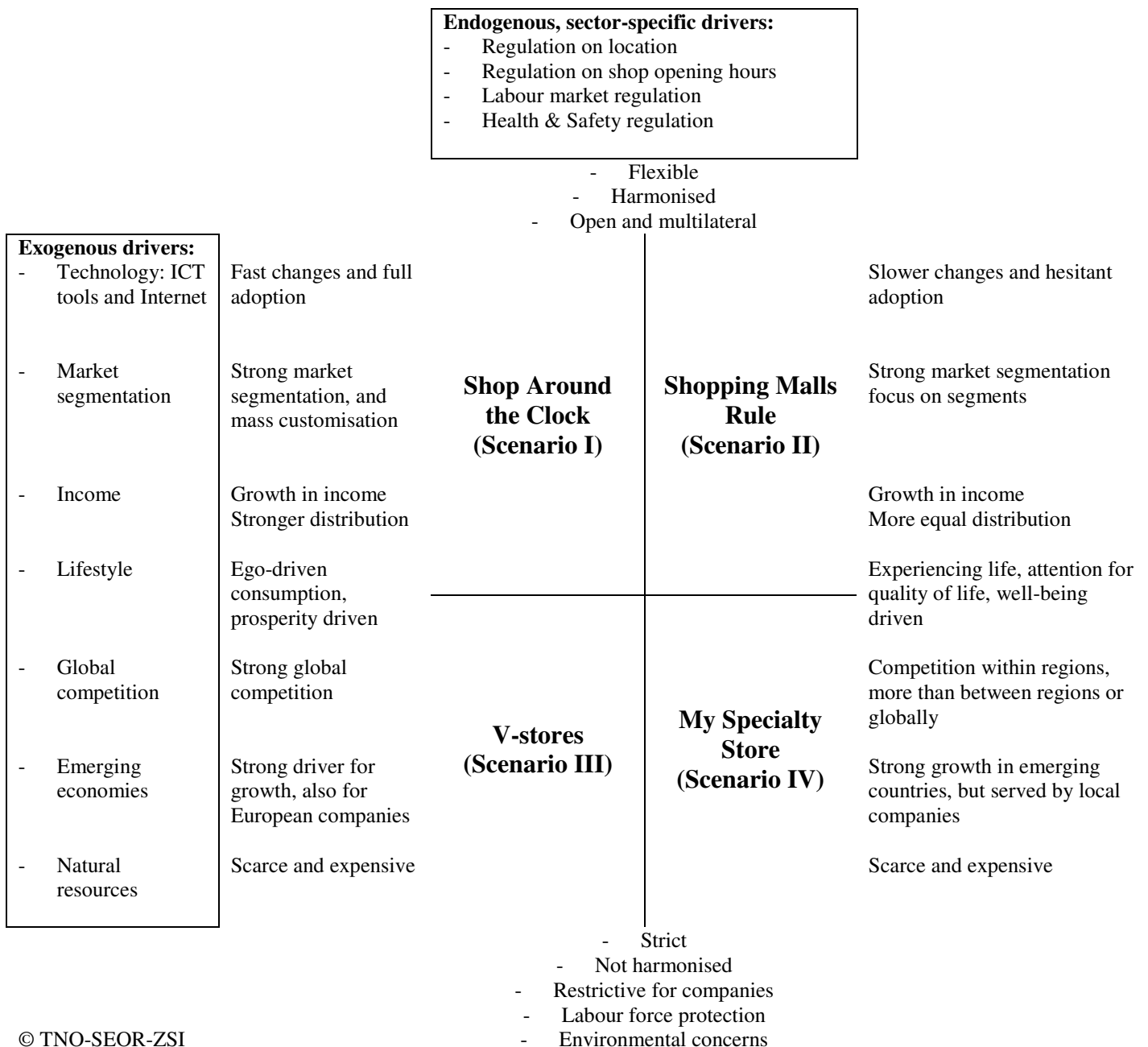
Part II presents the scenarios and their implications for jobs, skills and knowledge. It reflects steps 4, 5 and 6 of the common methodology. The contents of part II are as follows: Chapter 10 describes the structure and highlights the content of the four main scenarios (step 4). For each of these scenarios plausible yet different assumptions have been made as to how the main drivers of change will develop and add up to different states of the future. In subsequent steps the implications of the scenarios for jobs and skills are analysed. In order to facilitate a translation of these implications to the job function level, first a workable job function structure is proposed in Chapter 11. This structure is based on the functions as they appear in Eurostat's Labour Force Survey and further elaborated. Chapter 12 discusses the main implications of the scenarios in terms of future employment volumes by job function (step 5). Chapter 13 assesses the implications of scenarios for future skills and knowledge needs by job function. It translates the implications of the scenarios for skills and knowledge by function (step 6).

# 10 Scenarios

## 10.1 Introduction

This section presents the main scenarios for the distribution and trade sector. The scenarios take a medium-long range time perspective, taking 2020 as the focal year. The scenarios which were specifically constructed for the distribution and trade sector in this study are based on a clustering of relevant drivers identified in part I. Figure 10.1 summarizes the scenarios and highlights the underlying drivers, with the x-axis reflecting the relevant exogenous drivers and the y-axis reflecting the relevant endogenous drivers.

**Figure 10.1 Four scenarios for the distribution and trade sector**



The scenarios are construed to ‘scan’ the future, and are for the purpose of this study used to assess the impact of future developments on jobs, skills and knowledge. It is important to understand what scenarios can deliver and what not. Scenarios depict plausible futures and might reveal possible paths of development towards these futures. They are neither predictions or forecasts, nor wishful pictures (‘dreams’, ‘crystal ball gazing’) of the future. Grounded in existing data and trends, scenarios are derived in a logical and deductive way, with different and sometimes opposing presumptions about how key drivers might develop, resulting in inferences about plausible, i.e. credible and imaginable, futures.

The goal of the scenarios presented here is to analyse whether different futures will have different implications for job volumes and skill needs by function. If this is the case, it is clear that the answers to emerging volume gaps and skill needs should reckon with these differences, and hence will imply different (sets) of possible answers – i.e. strategic choices – for each scenario. It should be emphasized that by definition it is unknown which scenario will become reality. In fact, there is only a tiny little chance that indeed one of the scenarios will become the ‘real’ future. Chances are much higher that the future will be a mix (of elements) of the described scenarios. The scenarios apply to the commerce sector broadly defined, but focus mainly on the retail sector. This also includes all sorts of products and services traded in this sub-sector. The way in which the scenarios have been constructed does not preclude a differentiation between various Member States. The context in the different Member States will differ and this will also influence which scenario will be more likely than another. Member States might therefore be located in different scenario quadrants, now as well as in the future. Moreover, the future developments can be rather different for large and small firms. Small retailers are more likely to operate and compete more locally, while large retailers operate more internationally and will also have to deal with more competition at the global level. Scenario analysis, however, enables us to get a better view on the wide range of volume effects and skills needed in the future, and therefore also of possible solutions.

In drafting the scenarios, a clear distinction has been made between exogenous and endogenous drivers; the horizontal axis in the figure represents the relevant exogenous drivers, whereas the vertical axis represents the relevant endogenous drivers. The main difference between the two categories of drivers is the scope and ability for direct influence. Exogenous drivers are drivers that form a “given” for the sector without much room for influence for/by individual actors. Endogenous drivers are drivers that can be influenced at the sector level, for instance by national or European policy-making. Only those drivers that received the highest ranking - a score between 8 to 10 on a scale of 0 to 10 (see chapter 9) - have been taken into consideration. Two sets of endogenous factors are not included in these scenarios. These concern the course of action taken at the industry/company level itself (by definition excluded) and the measures directed towards the educational and training system, respectively. These last factors are discussed in the last part of this study.

## **10.2 Drivers – building blocks for scenarios**

Exogenous drivers for the scenarios are:

- *Technology*: important drivers for the commerce sector are the development, application, and use of ICT related tools. Over the past 20 years, the integration of



ICT has resulted in increased efficiency and profitability. Also for the future ICT will remain important. ICT will help to better understand the customers, to further optimise the supply chain, to build closer relations with the customers, to design and offer customised products and services, to optimise shop floor operations, to increase efficiency, and to save costs. ICT and technological developments will also enable the provision of value-added services by wholesale traders. At the left-hand side of the axis these technological developments will go fast and will be fully adopted by the sector; at the right-hand side technological developments will be less decisive for the sector.

- *Market segmentation:* mass customisation and tailor-made sales and services will be an important driver for future development in any scenario. The time of mass consumption is over; consumers have individual wishes and needs. The further segmentation of the markets also addresses the specific needs of the ageing population. Supported by the application of ICT tools, retailers will know more about their customers and will build up close relations with them. Based on this information and the close relations, retailers will make offerings tailored to the individual needs of the customer. At the left-hand side of the axis, mass customisation will be fully adopted, i.e. retailers will address individual wishes and needs of a wide range of customers. At the right-hand side of the axis, mass customisation is somewhat less extreme: retailers acknowledge different market segments, but will mainly focus on a specific one.
- *Income:* changes in the income per capita and household are certainly relevant for the commerce sector. The more people earn, the more they can spend on consumer goods. It will also work the other way around. Also changes in the income distribution will be important, as sharp differences in income can result in sharper distinction between market segments. At the left-hand side of the axis it is expected that income will increase substantially and that the differences in income will become much stronger. At the right-hand side of the axis, income will also grow, but the income will be distributed somewhat more equally.
- *Lifestyle:* at the left-hand side consumers will be driven by their wish for prosperity and consumption. They know exactly what they want and at what conditions. Consumers will be very price sensitive for regular products, while at the same time spending a lot on more exclusive products. At the right-hand side consumers will be more focused on quality of life and well-being. They will look for experiences. This attention for quality of life also covers more demand for sustainable and environmentally friendly products.
- *Global competition:* at the left-hand side global competition will further increase. Retailers and wholesale traders will increasingly have to compete at a global scale, also because of the further adoption and exploitation of e-commerce and the success of commerce in emerging countries. At the right-hand side global competition will be there, but competition will mainly take place at the regional or local level. Retailers and wholesale traders will focus on their regional, national and interregional markets.
- *Emerging economies:* at the left-hand side emerging economies will continue to drive global growth. Retailers and wholesale traders will continue to enter these emerging markets, by establishing enterprises in these emerging economies as well as by implementing e-commerce applications. At the right-hand side of the axis, emerging economies will grow, but they will be very well served by local parties or by international parties already established there.

- *Natural resources*: at both sides the availability and price of natural resources will become under pressure. At the left-hand side retailers and wholesale traders will source for materials and foods internationally, further increasing this pressure. At the right-hand side, retailers and wholesale traders will source their goods locally and regionally.

Endogenous drivers for the scenarios are mainly related to different types of regulation:

In general, regulation is an important driver for the sector as it defines to a large extent the ‘freedom to operate’. Specifically four types of regulation are distinguished:

- *Labour regulation* – defining to what extent retailers can use young and cheap labour and to what extent labour flexibility can be used.
- *Regulation on shop opening hours* – defining the operating time for retailers.
- *Regulation on location and zoning* – defining what type of stores can be located in what place.
- *Health and safety regulation* – impacting the management of the value chain, as all products in the commerce value chain need to be followed throughout the chain (tracking and tracing).

At the upper part of the matrix regulation is considered as flexible and supportive to the needs of distribution and retail companies, while at the lower part of the matrix regulation is seen as more strict, which may be hindering the expansion of the sector, but may also be protecting the environment through limits on physical expansion and may strengthen the position of the labour force in this sector.

### 10.3 The scenarios – detailed discussion

Based on the combination of endogenous and exogenous drivers the following four sector scenarios for the commerce sector are distinguished:

- Scenario I: *Shop Around the Clock*
- Scenario II: *Shopping Malls Rule*
- Scenario III: *V-stores*
- Scenario IV: *My Specialty Store*.

#### **Scenario 1: *Shop Around the Clock***

Consumers are in the lead. They know exactly what they want and need. They can consume anywhere, anyplace, anytime. They can do this both in virtual and physical stores. Technological developments will enable a one-on-one relationship with the consumer, personalized marketing and sales and mass customization driven by more knowledge of consumers. Strong market segmentation and mass customisation will be supported by technological solutions which enable a full multi-channel sales and marketing strategy. Consumers will be very price-sensitive to regular products and services, but at the same time they will spend a lot of money on very exclusive and tailor-made products. Fine tuned logistics and optimised supply chain management make it possible to deliver goods anywhere anytime in an efficient way, enabling both discounting formulas and exclusive tailor-made formats. The full application of mass customisation requires full flexibility in everything: flexible labour force, flexible opening hours, flexible (retail) locations, etc. Governments acknowledge this need for

flexibility and design flexible and harmonised regulations in such a way that this need for flexibility is supported. Global competition will be fierce, but open because there will be no hindering regulations. Environmental protection is limited in this scenario, as is the protection of employees who are increasingly hired on flexible contracts. Emerging economies offer many opportunities for growth and the emerging markets will be served through local and multinational companies as well as through virtual stores. Although natural resources will be scarce and expensive, this will not really restrict distribution, mainly because of the strong demand for products from anywhere in the world.

### **Scenario II: *Shopping Malls Rule***

Technological change is happening at a slower pace and consumers are somewhat hesitant to adopt all the technological possibilities. Consumers will use the Internet for specific products only (e.g. travelling, books and music), but they will mainly shop in physical stores. Consumers are looking for a full shopping experience: shopping is fun and part of entertainment and consumers will combine shopping with other entertainment experiences (e.g. going to the movies, sports, games and casino). Large shopping malls will address this need for a full shopping experience. Shopping malls deliver more than just floor space; it's a world full of experience, including other types of entertainment. The establishment of large shopping areas is not hindered by regulation. Regulation on location, labour and opening hours is loose and flexible and shopping malls will serve their clients 24/7. Regulation with regard to the position of employees is weak. There are no restrictions on the expansion of shopping malls with possibly negative implications for the environment. Although there will be global competition, retailers will increasingly serve their local or regional markets, because this makes it easier to address local customer needs. Companies that do not already have business in emerging markets will not try to start this as competition in these markets will increasingly come from the local companies. Natural resources are scarce and expensive, which will stimulate companies to focus more on the regional markets.

### **Scenario III: *V-stores***

Restrictive regulation on location and labour in the EU and technological change promote the rapid growth of e-business and the emergence of virtual stores. There is a 24/7 possibility of virtual shopping, but delivery is restricted to certain hours. Nevertheless, almost everything is purchased via internet, not just books, music and travelling. E-businesses are serving worldwide, and also increasingly provide emerging markets as the Internet is fully adopted there as well. Although this scenario will result in more transport around the globe, expensive and scarce natural resources will stimulate the development of new types of delivery (e.g. collecting all deliveries to a specific neighbourhood, having consumers collecting their deliveries at a local distribution centre). International business can be restricted by national and European regulation on taxes, safety requirements and security. The position of employees may be strengthened in this scenario as the competitive pressures are severe than in the previous scenarios. Physical expansion of retail outlets will be limited. This may be beneficial for the environment due to reduced "greenfield" investments, but it may also lead to a deterioration of the quality of city centre shopping areas. The virtual stores offer tailor-made products and services and the fast technological developments and adoption enable one-on-one relationships with the customer and support full mass customisation. The extensive adoption of e-business could result in the establishment of virtual stores by established and new retailers, but it could also result in disintermediation of retail and wholesale as manufacturers establish direct relationships with consumers.

#### **Scenario IV: *My Speciality Store***

Technological developments are relatively slow and people are not really interested in adopting all kinds of high-tech solutions for their shopping. E-business will remain a niche-business, mainly used for specific products, e.g. music, books and travelling. Consumers like to shop, but not necessarily in large shopping malls. Large shopping areas which are open 24/7 are also restricted by rather strict regulations on location, labour and shopping hours. Consumers will favour proximity buying. They will look for smaller, specialised shops, located close to the consumers, in town centres and neighbourhoods, but also close to the local producers, for example farm shops. Quality of life and sustainable production and consumption will be important values for consumers. Retailers will have a one-on-one relationship with consumers and will know quite well what their customers want, but this is based on customer relation management by physical contact and small networks rather than by automated customer information systems. Focus in the sector is on quality of life, ethics and sustainability. Companies will also favour proximity purchasing, focusing on the local and regional markets and suppliers and not necessarily on global and emerging markets. This focus on local and regional markets is further strengthened by the expensive and scarce natural resources. The focus on local business will also lead to differentiated, high-quality shopping centres in the cities. Strict regulation on labour can help to improve the position of personnel working in the retail sector, although smaller firms will have less capacity to optimise the working conditions.

## **11 Job functions – towards a workable structure**

In order to determine the quantitative and qualitative implications of the scenarios for jobs and skills, a workable job classification is needed. The occupational classification of the available sector data derived from the Eurostat Labour Force Survey (LFS) is used as a starting point (see Box 3). The advantage of using this classification is that developments in the past as observed in the LFS can help to foresee likely trends for the future. For example, it might be expected that future developments in new Member States in some cases will follow similar paths as old Member States in the recent past. Moreover, where strong growth of certain job functions appeared in most recent years, one might have a reason to cautiously weigh and re-assess any further increases in future years, as the situation (markets and other factors) might have stabilised in the mean time. The share of job functions in total sector employment is not unimportant either; sizeable shares call for adequate attention. This does not imply that job functions with only very minor shares of the total should be ignored altogether. It might well be that occupations that have small shares now will face strong growth in the oncoming years, or are strategic and vital for growth of the sector as a whole, even if small in size.

However, the LFS job classification cannot be taken over one to one. First, the given LFS definitions of the job function groups are highly aggregated and cover therefore highly heterogeneous but not always comparable job functions. Reporting on this most aggregate level therefore would not be very illuminating. Second, some functions which may be strategic for the sector when looking at the future can be ‘hidden’ in a broader statistical category. This also includes ‘new’ emergent job functions. For both reasons some of the aggregated categories have been split up into separate job function categories, which have been given a more in-depth treatment. The opposite case, where certain job functions may

be closely related, but do not fall within the same statistical LFS class, may also apply. Here it would be logical to combine them.

### **Box 3. The European Labour Force Survey**

The European Union Labour Force Survey (LFS) is conducted in the 27 Member States of the European Union and two countries of the European Free Trade Association (EFTA) in accordance with Council Regulation (EEC) No. 577/98 of 9 March 1998. The data collection covers the years 1983 to 2006 and covers all industries and occupations. The national statistical institutes are responsible for selecting the sample, preparing the questionnaires, and conducting the direct interviews among households. The Labour Force Surveys are centrally processed by Eurostat, using the same concepts and definition, based on the International Labour Organisations guidelines and common classifications: (NACE (rev 1), ISCO-88 (COM), ISCED, NUTS).

Although the LFS can be used for comparative purposes, the relative small sample size (in 2002 the sample size was about 1.5 million of individuals, which represents 0.3% of the EU population) means that error margins can be high, especially when the industry itself is rather small.

Source: Eurostat (2008)

Third, in the trend analysis it was already observed that whereas in some countries employment shares of a particular (production) job function were extremely large, similar shares in other countries appeared extremely low, often with another closely related job function being much higher. A very likely explanation for this phenomenon is that in some countries workers are reported as job function x while in others they are reported as job function y, where basically similar tasks on the job are performed. By taking aggregates for these function types, this sort of reporting bias can be avoided. Fourth, the job functions that appear from statistical data analysis might not always be similar to what a person in or familiar with that sector would rank as the job functions that matter “in reality”, i.e. from a work floor perspective. On the basis of discussions with experts and national sector skills studies, an attempt was made to provide a job classification that is both workable and recognisable by the sector in practice. This classification is shown as Table 11.1 below.

In order to establish a meaningful and appropriate classification, the existing LFS occupational classification for the distribution and trade sector was adapted by either aggregating and/or selecting further differentiating some professions out of the original LFS statistical classification. This exercise was based on four criteria:

- employment shares (aggregating);
- closely related job functions (aggregating);
- strategic role in sector (disaggregating by further selecting among the occupational groups identified in the statistical classification);
- emergent job functions not yet covered and/or brought fully to light by current statistics.

**Table 11.1 Job classifications**

<b>Classification in Labour Force Survey (LFS)</b>	<b>Specific jobs of high relevance to sector falling in LFS classification</b>	<b>Job function categories as used in the next tables</b>
Managers of small enterprises	Managers / entrepreneurs of small enterprises in wholesale and retail trade Store managers	Managers of SMEs
Other specialist managers	Operations managers Finance and administration managers Personnel managers Sales and marketing managers Advertising and public relation managers Supply and distribution managers Computing services managers	Specialist managers
Health professionals	All kinds of health professionals, including medical doctors, dentists, veterinarians, pharmacists and other	Health professionals
Business professionals	Accountants, personnel and careers professionals, others Finance and sales associate professionals Business service agents and trade brokers Administrative associate professionals Customs, tax and related government associate professionals Decorators and commercial designers	Accounting & Finance professionals
Other professionals and technicians		Sales & Marketing professionals
		Supply chain professionals
Clerks	Office clerks Customer services clerks (e.g. cashiers and client information clerks)	Administrative support staff
Service workers	Personal service workers Models, salespersons and demonstrators (Senior) Sales Assistant Style advisor	Service workers
Mechanics and fitters	Motor vehicle mechanics and fitters Electrical mechanics, fitters and servicers Electronics mechanics, fitters and servicers	Craft workers
Other craft and related trades workers	Food processing and related trades workers (butchers, bakers, fruit and vegetable preservers etc) Textile, garment and related trades workers (e.g. tailors, dressmakers and hatters, shoe-makers and related workers)	
Motor vehicle drivers and mobile plant operators	Van drivers, heavy truck and lorry drivers, lifting-truck operators	Motor vehicle drivers

Other operators	Other machine operators	Machine operators
Elementary occupations	Sales and services elementary occupations – shelf fillers, shelf cleaners, removals clerks Packers, shipping clerks, transport clerks, couriers	Logistics workers

The functions used in this analysis can be described as follows:

- The category managers of SMEs includes managers of small enterprises in wholesale and retail trade. These managers can be the owners / entrepreneurs, but also store managers belong to this category.
- The category specialist managers contains managers from different specialisations, including finance and administration, human resource management, sales and marketing, advertising and public relations, supply and distribution, and computing services. Especially the sales and marketing, advertising, and supply and distribution managers are relevant for the sector. Computing services managers are relevant in relation to the use of ICT tools and e-commerce tools.
- The category health professionals includes different medical and health related specialisations. Especially the pharmacists are relevant to the sector.
- The category accounting and finance professionals includes accountants and bookkeepers.
- The category sales and marketing professionals includes sales and marketing staff, specialised in customisation and customer relation management.
- The category supply chain professionals is a relatively new emerging category of high-educated workers who enable and facilitate complex regional and global SCM processes, including contracting.
- The category administrative support staff includes secretaries, finance clerks, and other support workers carrying out administrative tasks.
- The category services workers includes customer services clerks like cashiers and client information clerks as well as shop, stall and market sales assistants, demonstrators and (style) advisors.
- The category craft workers includes mechanics, fitters and servicers of household goods as well as motor vehicles. This category also includes craft workers active in food processing, like butchers and bakers, as well as workers active in textile, garment and shoe-repairers.
- The category motor vehicle drivers includes drivers of vans, lorries, trucks and lifting-trucks.
- The category machine operators includes workers operating machines used in food processing and textile and leather preparation.
- The category logistics workers includes transport and shipping clerks, shelf fillers and cleaners, removals clerks, and packers.

## 12 Implications of scenarios by job function - volume effects

Different futures will have different implications for jobs, both in quantitative and in qualitative terms. In this chapter the implications of the four scenarios in terms of volume effects for each of the identified job functions are assessed. Trends and developments of the recent past provide an important starting point in forming an idea about these future developments. This quantitative trend information has been combined with expert opinions of a core expert team and supplemented with insights from invited sector experts in a dedicated workshop to assess which volume effects would be likely to occur for which job functions. It should be emphasized that the referred expected changes are qualitative in nature, reflecting the outcome of expert judgements and expert discussion as well as desk research taking into account the results of other studies. The results of the following chapter should therefore be used as a supplement and an independent expert assessment in addition to other more formal analyses, e.g. based on mathematical and/or econometric modelling and simulation.

Main volume trends based on the period 2000-2006 are as follows:

- *Managers of SMEs*: managers of SMEs represent 11% of the sector's workforce in the EU (equivalent to 3.6 million workers<sup>30</sup>), with a somewhat larger share in EU15 (12%) and a lower share in the new Member States (7%). The share of managers of SMEs remained rather stable in the period 2000-2006. Especially the number of medium educated managers of SMEs is increasing in the new Member States and to a somewhat lesser extent in EU15. The share of low and high educated managers of SMEs is decreasing. The managers of SMEs are in general getting older; their share in the age category 15 to 39 years is decreasing. About 60% of the managers of SMEs is male. As the sector contains mainly small and medium enterprise, the position of the managers of SMEs will remain important.
- *Specialist managers*: specialist managers represent 5% of the sector's workforce in the EU (equivalent to 1.8 million workers) and this share is similar in the old and new Member States. The share of specialist managers has decreased slightly (- 1%) in the EU in the period 2000-2006. However, the number of high educated specialist managers is increasing, while in both the low and middle educated categories their numbers are decreasing all over Europe. In EU15 the specialist managers are increasingly in the age category 40 to 49 years, while in the new Member States the specialist managers are getting younger. Approximately 70% of the specialist managers is male. It is expected that supply chain managers as well as marketing and sales managers will become more relevant, mainly because of global sourcing strategies as well as a stronger focus on customer relation management and customisation.
- *Health professionals*: health professionals have share of 2% of the sector's workforce in all Member States. This represents 717 thousands workers in 2006. Their share remained unchanged in the period 2000-2006. The number of high educated health professionals is decreasing, especially in the new Member States, but the share of middle educated health professionals is increasing, also in the new Member States. In addition, especially in the new Member States the health

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<sup>30</sup> Note that these figures are estimates, based on the latest Labour Force Survey results.



professionals are getting younger. Three quarters of the health professionals is female; in the new Member States this is even 90%.

- *Business professionals and other professionals*: business and other professionals have an average share of 15% of the sector's total workforce in the EU, which represents 4.9 million workers. The share of business and other professionals remained stable in the period 2000-2006. The share of low educated business and other professionals is decreasing, but the share of middle and high educated workers is increasing. The share of young business and other professionals is diminishing, while the workforce is getting older in the EU. Men represent 60% of the workers in this category. Like for the category other specialist managers, it is expected that sales & marketing professionals as well as supply chain professionals will become more important in the future.
- *Clerks*: clerks have a share of 13% in the sector's workforce, which represents 4.2 million workers. Their share in the sector's workforce decreased slightly in the period 2000-2006. The share of low educated clerks is decreasing in both old and new Member States, while the share of middle and high educated clerks is increasing; the latter especially in the EU15. In the EU15 clerks are getting older, while in the new Member States clerks increasingly belong to the younger age category. Almost 70% of the clerks is female; in the new Member States this is somewhat lower (60%).
- *Service workers*: service workers represent by far the largest occupation function with 33% in the EU, which is equivalent to 11 million workers in 2006. The share of service workers is much larger in the new Member States (46%) than in the EU15 (30%). The share of service workers has decreased a little in the EU 15 (- 2 %), but increased slightly (+ 1%) in the new Member States. The education level of service workers is increasing all over Europe. The division over the different age categories remains more or less stable. Approximately 70% of the service workers is female.
- *Mechanics, fitters and craft and related trades workers*: mechanics, fitters, servicers and craft workers represent 10% of the sector's workforce, which is equivalent to 3.5 million workers. Their share in the sector's workforce remained stable in the period 2000-2006, only a slight decrease (- 1 %) in craft workers. The share of middle educated workers in this category is increasing at the cost of the low educated workers. Especially the craft workers are getting older. Around 90% of the workers in this category is male.
- *Motor vehicle drivers*: drivers of vans, lorries, trucks and lifting trucks have a share of 3% in the sector's workforce, representing 1 million workers. Their share remained stable in EU and increased slightly (+ 1%) in the new Member States. The education level of this category workers improved from low to middle educated in the EU. Like for many other occupation categories, the drivers are getting older. Almost all drivers are men.
- *Machine operators*: machine operators represent 1% of the sector's workforce, which is equivalent to 365 thousand workers. Their share in the total workforce in the sector remained the same in the period 2000-2006. Similar to the clerks, service workers, mechanics and craft workers and the drivers, the education level of the machine operators is improving, while they are also getting older. Around 70% of the operators is male.
- *Elementary occupations*: elementary occupations represent a share of 6% of the sector's workforce, which is equivalent to 2.1 million workers. Their share in the sector's workforce remained stable in the period 2000-2006. The education level

of this group of workers is increasing. They are also getting older. 60% of the workers in this category is male.

The results in Tables 12.1 and 12.2 represent the relative expected changes in the volume of workers by job function in the distribution and trade sector by the scenarios end year 2020. The tables show the different selected job functions and the changes expected for each of the scenarios. Table 12.1 represents the Shop Around the Clock and Shopping Malls Rule scenarios. Table 12.2 highlights the V-stores and My Specialty Store scenarios.

### ***Volume effects Shop Around the Clock and Shopping Malls Rule***

In 2020, the volume of jobs will in average remain stable in the Shop Around the Clock scenario, although there will be differences between the various job functions (see Table 12.1). In this scenario, the sector will serve the customer in both physical and virtual stores. Strong market segmentation will lead to mass customisation, enabled by the application of technological solutions. As the economic growth will be strong and mass customisation will lead to more market niches, there will more opportunities for both physical and virtual stores. It is expected that the number of managers of SMEs and other specialist managers will increase. The focus on mass customisation and one-on-one customer relation management will especially require more sales & marketing managers and professionals. The global business environment will require more supply chain managers and professionals. On the other hand, the number of accounting and finance professionals is expected to decrease, as their work will increasingly be computerised and replaced by technological solutions (e.g. RFID will make accounting, book keeping, as well as managing supplies much easier). Technology will also be the main reason that the number of administrative support staff will decrease slightly. The number of service workers will remain stable. On the one hand, the opening of more stores might require more shop sales workers and the growing e-business will require more customer service workers. On the other hand, further adoption of e-business tools and in-store sales and service technology (e.g. automatic scanning of goods, displays on shopping trolleys giving information about goods and discounts) will require less service workers. The 24/7 and global sales developments will result in more transport and freight, requiring more drivers (with final transportation increasingly done by postmen or parcel service companies). Moreover, it is also expected that customers will increasingly pick up their parcels in the physical stores or in special final distribution centres. Due to the technological changes, efficiency in freight handling can be improved and this will require less logistics workers. The number of craft workers will likely decrease a little, especially because of less need for repair and craft services; consumers will likely replace goods sooner than they do now.

The Shopping Malls Rule scenario will probably result in stable employment levels as well. Most of the shopping will be done in large shopping malls, concentrating the shops and combining shopping with other sorts of entertainment. Consumers look for entertainment, of which is shopping is part. The Shopping Malls Rule scenario will probably require more service workers including sales staff in the stores as well as customer service workers. In addition, the marketing of the shopping mall experience could result in a slight increase in sales and marketing professionals. The shopping malls will mainly include shops from global brands, national franchise chains and global or national formulas; the small, specialised stores will probably be not located in these malls. This will lead to somewhat less managers of SMEs as well as craft workers. The

number of machine operators will probably decrease as well. Administrative support staff will probably decrease, mainly because of increased efficiency due to clear and harmonised regulation on opening hours, location, labour, health and safety.

**Table 12.1 Scenario implications: relative volume changes by job function 2009-2020**

	Shop Around the Clock	Shopping Malls Rule
Managers of SMEs	+	0/-
Specialist managers	+	0
Health professionals	0	0
Accounting & Finance professionals	-	0
Sales & Marketing professionals	+	0/+
Supply chain professionals	+	0
Administrative support workers	0/-	-
Service workers	0	+
Craft workers	0/-	0/-
Motor vehicle drivers	0/+	0
Machine operators	0	-
Logistics workers	-	0
<b>Overall job change</b>	<b>0/+</b>	<b>0</b>

Note: - = decrease, + = increase, 0 = maintain

### ***Volume effects V-stores and My Specialty Store***

The V-stores scenario will likely result in a decrease in employment in 2020 (see Table 4.2). Nevertheless, this is the average result; some specific job functions may decrease, while others may increase. E-business offers many opportunities for SMEs, but the on-line competition from large retail organisations and from producers and wholesale organisations (because of disintermediation) could be strong as well. It is expected that the volume of managers of SMEs will stabilise. Virtual stores will require less sales staff, less than the increase in customer service workers. Virtual stores will probably also lead to less craft workers and machine operators in the stores, as the virtual stores will mainly buy goods from large, global suppliers. The number of managers and professionals specialised in marketing and sales, especially in relation to e-commerce will increase. However, the number of supply chain professionals is likely to decrease. Although e-business could lead to higher volumes of distribution and connecting more different supply chains, it is expected that the disintermediation and integration of the value chain can have a stronger effect. The volume of accounting and finance professionals will decrease, mainly because of technological developments increasing efficiency and automation of accounting, book keeping and managing supplies. Technological change will also result in a strong decrease in the number of administrative support staff, as their work will increasingly be taken over by technological solutions. More e-business results in more transport and freight handling, requiring more drivers, although the final transportation to the customer will be done mainly by postmen. Moreover, like in the Shop Around the Clock scenario, it is also expected that customers will increasingly pick up their parcels in stores or in special final distribution centres. The number of logistics workers is likely to decrease, despite the increase in e-business. Technological solutions will result in strong efficiency gains and this will outweigh demand for labour driven by increased Internet sales.

The My Specialty Store scenario will likely result in a small increase in employment in 2020. This increase will mainly come from small increases in the number of managers of SMEs, administrative support staff, service workers and craft workers. In the My

Specialty Store scenario there will be more specialised and small shops located close to the consumers. This will result in more managers and it will also require more sales staff. The specialised stores will result in more craft workers. The number of administrative support staff is likely to increase because poor regulation, decentralisation and regionalisation of the supply chain will result in more administrative tasks and less efficiency. The other occupation categories will probably remain stable in terms of employment. There could be some increased need for sales and marketing specialists as dedicated customer relation management will become very important in this scenario. It will also require more expertise and knowledge of green retailing and sustainability, as well as more experience in high quality goods and services. More focus on quality of life and healthy living can increase the need for health professionals giving consumers advice on health related products and selling these types of products.

**Table 12.2 Scenario implications: relative volume changes by job function 2009-2020**

	V-stores	My Specialty Store
Managers of SMEs	0	+
Specialist managers	0/+	0
Health professionals	0/-	0/+
Accounting & Finance professionals	-	0
Sales & Marketing professionals	+	0/+
Supply chain professionals	-	0
Administrative support workers	--	+
Service workers	-	+
Craft workers	-	+
Motor vehicle drivers	0/+	0
Machine operators	-	0
Logistics workers	-	0
<b>Overall job change</b>	-	<b>0/+</b>

Note: - = decrease, + = increase, 0 = maintain

## 13 Implications of scenarios - main emergent competences

### 13.1 Introduction

Determining emergent competences is at the very heart of this study. In order to identify the main emergent competences by occupational function, the Rodrigues (2007) methodology refers to three main competences: theoretical, technical and social competences. This distinction builds on the distinction between knowledge, skills and competences in the European Qualifications Framework (EQF) and the European Credit system for Vocational Education and Training (ECVET) (see Box 4 below). The term human capital broadly defined by the OECD as ‘the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being’ (OECD, 2001:18) captures all three. The use of the term ‘capital’ leads one to think in terms of investments in education and training which are often necessary in order to acquire skills and knowledge. However, skills and knowledge can also be acquired through work experience, informal on-the-job learning and a variety of other means.

In the actual identification of future competences, the EQF/ECVET definitions are used as indicative. It is noted that the difference between competences and skills is not always clear-cut, for instance where ‘soft skills’ come into play. A similar comment holds for what determines job or occupational qualifications.<sup>31</sup> Partly because of these identification issues, adequate measurement of competences, knowledge and skills is notoriously difficult. In some of the literature, the problem of skills measurement is sometimes avoided by using indicators (proxies) focusing on qualifications (high-level, intermediate-level, low-level) as well as occupations. For the purpose of identifying *future* skill needs such approach will not deliver useful results. Instead it is the knowledge and skills behind that need to be identified.

#### **Box 4. Definition of competences, skills and knowledge in EQF and ECVET**

Several definitions of knowledge, competences and skills are nationally as well as internationally under discussion. Moreover, Member States of the European Union still have different approaches in defining these terms. The European Union has set up a joint process to co-ordinate the different existing terminologies and to find a common basis. Aims of this process are for example to strengthen the mobility of the labour force within the European Union and to facilitate sectoral developments. In the following reference is made to the definition used by the European Qualification Framework (EQF) and the European Credit System on Vocational Education and Training (ECVET).

The EQF links national qualification systems and tries to make vocational training and lifelong learning more transparent and understandable. Therefore a common terminology was developed. The following descriptors are taken from the EQF (European Commission, 2008e; see also European Commission, 2008f):

- *Knowledge* refers to the outcome of the accumulation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual;
- *Skills* refers to the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments);
- *Competence* refers to the proven ability to use knowledge, skills and personal, social and/ or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy;
- *Qualification* refers to a formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards;
- *Learning outcomes* refer to statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence.

Rather than producing a full and exhaustive list of all competences for each job function, the key focus in this chapter is on identifying and describing key and critical competences for the future. The description will be focused but also general enough to be meaningful

<sup>31</sup> ‘Qualification’ denotes the requirements for an individual to enter or progress within an occupation. It also denotes an official record (certificate, diploma) of achievement which recognises successful completion of education or training, or satisfactory performance in a test or examination. The concept of qualification varies from one country to another. It may express the ability – formally defined in work contracts or collective agreements – to perform a certain job or meet the requirements of the workplace. A qualification may give rise to a number of rights and prerogatives which determine the individual’s position within the hierarchy of his/her occupational context. (Tessaring, 2004: 235).

across countries. A slight extension of the original Rodrigues methodology is that together with the identification of critical skills and knowledge needs, a differentiation by scenario is made. Skills and knowledge needs are operationalised as expected key changes in specific skills and knowledge categories by occupation.

### **Box 5. Skills needs, skills shortages and skills gaps defined**

- *Emergent skills needs* are defined here as the change in skills that is needed to adequately fulfil a certain job function in the future. Addressing emergent skills is needed in order to avoid skills shortages and/or skills gaps in the future.
- *Skills shortages* exist where there is a genuine lack of adequately skilled individuals available in the accessible labour market. A skill shortage arises when an employer has a vacancy that is hard-to-fill because applicants lack the necessary skills, qualifications or experience.
- *Skills gaps* arise where an employee does not fully meet the skills requirements for a specific job function but is nevertheless hired. This skills gap needs to be closed through training. Skills gaps can arise where new entrants to the labour market are hired and although apparently trained and qualified for occupations still lack some of the skills required.

**Table 13.1 Overview of skills and knowledge clustered by category**

#### Knowledge ('hard skills')

- Legislative / regulatory knowledge (environmental / safety / labour / contracting); Language\*; e-skills; Marketing skills; Technical knowledge; Product knowledge; Product development

#### Social Skills

- Team working skills; Social perceptiveness (listening / understanding); Communication; Networking; Language\*; Intercultural

#### Problem-solving Skills

- Analytical skills; Interdisciplinary; Initiative, Multi-skilling; Creativity

#### Self management

- Planning; Stress and time management; Flexibility; Multi-tasking

#### Management skills

- Strategic & visionary; Coaching and team building; Change management; Project management; Process optimizing; Quality management; people skills crucial for collegial management style

#### Entrepreneurial skills

- Supplier and customer relationship / understanding; Business understanding; Trend setting / trend spotting

Throughout this report the term *competences* is defined as the “proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development.” (see Box 4 for definitions). In the practical elaboration of competence needs hereafter the focus is predominantly on knowledge and skills needs, with a further distinction to what is usually described as ‘soft skills’ such as team working skills, and planning and organising. Note that the ‘personal, social and/or methodological abilities’ included in the definition of competences (see Box 5) come very close to what is generally understood as ‘soft skills’.

A number of different skills categories have been taken into account, including social skills, problem solving skills, (self) management skills, skills related to entrepreneurship, as well as knowledge requirements (sometimes labelled as ‘hard skills’). Table 13.1 provides an overview of the different skills and knowledge categories taken into consideration. Literacy and numeracy skills are not specifically mentioned in the tables. In practice these skills cannot be taken for granted. However, they are a prerequisite rather than an emerging skill to participate in the workforce especially in highly regulated and science-based sectors such as chemicals.

For each job function key future skills and knowledge needs were identified. This was done in a workshop with a number of invited sector experts, and validated in two subsequent workshops, including the step 10 final workshop; the results therefore remain based on joint expert opinion. The analysis in Part I and the data tables formed a ‘levelling’ starting point for each of the discussants. Key ‘new’ skills and knowledge needs were thus identified for various job functions. The emergent future competences – defined as skills and knowledge needs - are identified and clustered together with similar ones in a concise overview table per job function (see next sections 13.2 to 13.11). Only substantive key changes in skills and knowledge needs are taken into account, which means that only part of the cells in the table is ‘filled’. However, if a certain skill or knowledge type is highlighted in one scenario, but is not addressed in another, this does not mean that it is irrelevant. Rather it means that relative demand for this skill in the latter case will not increase within the time frame 2009-2020.

## **13.2 Managers of SMEs**

The most important changes in skills and competences for managers of SMEs will occur in the Shop Around the Clock, the V-stores and My Specialty Store scenarios. It is expected that the role of SMEs will decline in the Shopping Malls Rule scenario and this is reflected in the lower number of emerging skills and competences. In this Shopping Malls Rule scenario, managers of SMEs will mainly need skills for keeping their clients and maintaining their business in a very competitive environment but with slower economic growth. The position of SMEs in the V-stores scenario will probably be difficult as well, because of heavy online competition from larger retailers and from producers and wholesale due to disintermediation and integration. Although e-business also offers many opportunities for SMEs.

In the Shop Around the Clock and My Specialty Store scenarios it is expected that small shops will remain an important actor in the commerce sector, and even improve their position especially in the My Specialty Store scenario. Entrepreneurial skills are essential in all scenarios to maintain and expand their business, but these skills are particular relevant in the Shop Around the Clock and the My Specialty Store scenarios. They will have to be able to understand the customers' needs and to build up strong relationships with customers. Moreover, their success will be defined by how well they will be able to spot trends and to fully exploit customer relations.



**Table 9.2 Emerging skills and competences: managers of SMEs 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding suppliers & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
	Sales skills				
	International trade skills				
Management skills	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
	Client relationship management				
Total emerging skills and competences	21	11	17	21	

Creativity and marketing skills are required in all scenarios; in the first three scenarios for expanding their business and exploiting the favourable market opportunities, but in the Shopping Malls Rule for maintaining their business and finding new business strategies to survive. In the second and third scenario client relationship management will be important as well, mainly to keep the customers coming to their businesses. Strategic & visionary management skills are relevant in all scenarios; managers of SMEs will have to be able to think strategically and with vision about their present and future position in the

market. Change management will be important for the scenarios with high economic growth and fast adoption of new technologies.

In the My Specialty Store scenario customers will look for high quality products and services, which are also sustainable in the broader sense of the word. This will require more social perceptiveness from the managers as well excellent quality management. Taking initiative and developing new business to enhance a sustainable business strategy will be important as well. Language and intercultural skills will be important in the first and third scenarios as in these scenarios business will increasingly be international, driven by a further adoption of e-commerce tools. Internationalisation will also require better export and international trade skills. Networking is relevant because of the international environment as well as the need to link to neighbouring businesses to strengthen their position. Flexibility and multi-tasking is especially required in the Shop Around the Clock and the My Specialty Store scenario as in these scenarios SMEs will have to act flexible in terms of, for example, opening hours and customer services.

Knowledge of supply chain management will be important for managers of SMEs in the Shop Around the Clock and the V-stores scenarios as in these scenarios online sourcing of goods will easily be available for all. However, supply chain management skills are also important in the My Specialty Store scenario as managers will need to have good knowledge of local and regional suppliers. Knowledge of legislation and regulation will be relevant in the scenarios with poor harmonisation of regulation and more legislation organised at the regional level.

### **13.3 Specialist managers**

The category specialist managers includes managers with many different specialisations, including marketing managers, human resources managers, finance managers, quality managers, supply chain managers etc. The type of skills and competences relevant for each of these specialist managers will be different. Table 13.3 gives an overview of the expected emerging skills and competences for this job function in general, although some skills will be more relevant for a specific specialist manager than another.

Although specialist managers are not the owners of the companies and are not entrepreneurs themselves, entrepreneurial skills are very relevant. Growth in the sector will be based on how well the sector knows the customer and how well customers are served. This requires especially from the marketing and sales managers excellent understanding of both suppliers and customers, marketing skills, trend spotting and setting and business development skills to attract customers and to develop new business strategies. At the same time, these managers are expected to have good client relationship management skills and to address management issues strategically and with vision.

**Table 13.3 Emerging skills and competences: specialist managers 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking			**	
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding suppliers & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
	Sales skills				
	International trade skills				
Management skills	Strategic				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
Client relationship management					
Total emerging skills and competences		20	11	16	22

\*\* Other kind of contact networks and databases.

Quality management and social perceptiveness will be relevant in the My Specialty Store scenarios where customers will look for sustainable and premium quality goods and services. Creativity in solving problems is a requirement in all scenarios because of the competitive environment and the ever changing customer needs. Language and intercultural skills are relevant because of the international environment. Knowledge of supply chain management will be relevant in the Shop Around the Clock and the V-stores scenarios as in these scenarios online sourcing of goods will easily be available and the supply chain will be truly globalised. In the My Specialty Store scenario knowledge of supply chain management is important as good knowledge of and contacts with local and regional suppliers is essential. Knowledge of legislation and regulation will be relevant in the V-stores and My Specialty Store scenarios.

### **13.4 Health professionals**

Health professionals includes different medical and health related specialisations, but the pharmacists are especially relevant here. Pharmacists can be working as an employee of an independent pharmacy or a pharmacy integrated in a supermarket or drugstore. Pharmacists can also be the owner of a pharmacy. This will require different types of skills. Table 13.4 presents a general overview of the emerging skills and competences for health professionals / pharmacists.

For all health professionals it will be important to have up-to-date knowledge of their profession. This is also valid for quality management skills. It is extremely important that no mistakes are made and that the products and services offered by health professionals are of high quality. Legislative and regulatory knowledge is important in the Shop Around the Clock and the V-stores scenarios because they will operate in international markets with different regulations on drugs, prescriptions and the health system. This will also be valid in the My Specialty Store scenario with poor governance and non-harmonised regulations in the regional markets. The international dimension in the first and third scenario will also require good networking, language and intercultural skills. The Shop Around the Clock scenario will ask for a very flexible attitude.

In the My Specialty Store scenario consumers will focus more on quality of life and healthy living and this will offer new opportunities for health professionals giving consumers advice on health and selling health related products. This will require from health professionals a stronger social perceptiveness, a better understanding of consumers, and trend spotting and trend setting skills.

**Table 13.4 Emerging skills and competences: health professionals 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	'Technical'/ Product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
Problem solving skills	Intercultural				
	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
Self management	Creativity				
	Planning				
	Stress & time management				
	Flexibility				
Entrepreneurship	Multi-tasking				
	Understanding suppliers & customers				
	Business development				
	Marketing skills				
Management skills	Trend setting / spotting				
	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
Client relationship management					
Total emerging skills and competences		9	4	8	7

### **13.5 Accounting & finance professionals**

In the scenarios with a fast adoption of technological solutions it is expected that the number of accounting and finance professionals will decrease. In the other scenarios their volume will probably stabilise. Nevertheless, in all scenarios ICT tools and e-business tools will increasingly computerise accounting and bookkeeping. Good, useful and timely available financial information is essential for managers to steer their business. Analytical skills, but also stress and time management skills will therefore be highly relevant for accounting and finance professionals. This is also the case for knowledge about legislation and regulation related to accounting and bookkeeping professionals. Regulation can differ internationally at the global level (relevant in the Shop Around the Clock and V-stores scenarios), but also regionally at the European level (relevant in the Shopping Malls Rule and My Specialty Stores scenarios). In addition, regulation on accounting principles and fiscal regulation are changing constantly.

**Table 13.5 Emerging skills and competences: accounting & finance professionals 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding supplier & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
Management skills	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
Client relationship management					
Total emerging skills and competences		4	4	4	4

### **13.6 Sales & marketing professionals**

The volume of sales & marketing professionals is expected to increase in the period 2009-2020, especially in the Shop Around the Clock and the V-stores scenarios. All scenarios will require excellent entrepreneurial skills, strategic and visionary management skills, client relationship management skills, creativity, networking, and communication skills to address the specific issues in the scenarios.

In the Shop Around the Clock and the V-stores scenarios more sales and marketing specialists are needed because of the increasing importance of one-on-one customer relationships and mass customisation in a very competitive environment. The Shop Around the Clock scenario asks for flexibility from all employees, also from the sales and marketing professionals. In the Shopping Malls Rule scenario, the need for sales and marketing professionals will be somewhat less urgent because of slower economic growth and less focus on market segmentation. However, they will be needed for keeping the customers coming and for developing business and marketing strategies together with other companies active in entertainment in order to offer consumers a full package of shopping and entertainment. In the My Specialty Store scenario, marketing and sales professionals will need to develop social perceptiveness and focus on understanding the customers' needs for sustainable and premium quality products and services.



**Table 13.6 Emerging skills and competences: sales & marketing professionals 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
Problem solving skills	Intercultural				
	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
Self management	Creativity				
	Planning				
	Stress & time management				
	Flexibility				
Entrepreneurship	Multi-tasking				
	Understanding supplier & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
Management skills	Sales skills				
	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
Quality management					
Total emerging skills and competences	Client relationship management				
		14	10	13	11

### **13.7 Supply chain professionals**

Supply chain management professionals are mainly operating in larger companies in the wholesale and retail sector. Global sourcing and distribution will continue, although it will increase strongly in the Shop Around the Clock scenario. This implies that in all scenarios supply chain management professionals will need to have good knowledge of supply chain management, international legislation and regulation, but also excellent communication and networking skills, and analytical skills. As the supply chain will be more regionally or nationally organised in the My Specialty Store scenario, language and intercultural skills will be mainly relevant in the other three scenarios. Like for all job functions, flexibility is especially relevant in the Shop Around the Clock scenario.

**Table 13.7 Emerging skills and competences: supply chain professionals 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding supplier & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
Management skills	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
Customer relationship management					
Total emerging skills and competences		9	8	8	6

### **13.8 Administrative support staff**

The number of administrative support staff is expected to increase in the My Specialty Store scenario and to decrease in the three other scenarios. Technological solutions and harmonised regulation will result in increased efficiency and less administrative tasks.

The international environment, as well as the lack of harmonisation of regulation requires good knowledge of legislation and regulations. As office tools are increasingly computerised, e-skills are relevant as well. In all scenarios, administrative support staff will have to work in teams, requiring good team working skills and communication skills. Language skills are relevant in the scenarios with a strong international dimension. Good, useful and timely available management information is essential in a very competitive and dynamic sector. This requires good planning skills as well as good stress and time management skills. Flexibility is especially relevant in the Shop Around the Clock and the My Specialty Store scenarios.

**Table 13.8 Emerging skills and competences: administrative support staff 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding supplier & customers	N.A.	N.A.	N.A.	N.A.
	Business development	N.A.	N.A.	N.A.	N.A.
	Marketing skills	N.A.	N.A.	N.A.	N.A.
	Trend setting / spotting	N.A.	N.A.	N.A.	N.A.
Management skills	Strategic & visionary	N.A.	N.A.	N.A.	N.A.
	Coaching & team building	N.A.	N.A.	N.A.	N.A.
	Collegial management style	N.A.	N.A.	N.A.	N.A.
	Change management	N.A.	N.A.	N.A.	N.A.
	Project management	N.A.	N.A.	N.A.	N.A.
	Process optimizing	N.A.	N.A.	N.A.	N.A.
	Quality management	N.A.	N.A.	N.A.	N.A.
Customer relationship management	N.A.	N.A.	N.A.	N.A.	
Total emerging skills and competences		11	8	10	10

### **13.9 Service workers**

The number of service workers is likely to increase in the Shopping Malls Rule and My Specialty Store scenarios and will probably stabilise in the Shop Around the Clock scenario. The service workers are key personnel in the retail sector, although they will become somewhat less relevant in the V-stores scenarios. This is also reflected in the number of emerging skills and competences required. Understanding the customer and good customer relation management skills are competences for a service worker, in all scenarios. In addition, service workers will need to have good sales and communication skills. The sales staff in physical stores will need to have well developed social perceptiveness and will have to be creative in approaching and convincing the customer. Taking initiative is important in attracting customers to your store and to serve your customers once they are in. The flow of customers can have high peaks, asking for stress and time management skills. The international business environment with globalised supply chains in the Shop Around the Clock and V-stores scenarios asks for good language and intercultural skills. However, intercultural skills are also important in the other two scenarios, as the clients increasingly have a multicultural background. In the My Specialty Store scenario, service workers need to have good analytical skills to address customer demands appropriately.

**Table 13.9 Emerging skills and competences: service workers 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding suppliers & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
	Sales skills				
Management skills	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
	Customer relationship management				
Total emerging skills and competences		14	12	8	14

### **13.10 Craft workers**

The job function category craft workers includes many different mechanics, fitters, repairers and servicers, active in food processing and shoe repair, or repair of household goods, but also repair of motor vehicles. Table 13.10 presents a general overview of the emerging competences and skills for this job function.

Only in the My Specialty Store scenario it is expected that the number of craft workers will increase. In the first two scenarios their number will remain stable; in the V-stores scenario their number will likely decrease. For all craft workers up-to-date technical and product knowledge is essential, regardless the scenario. This is also valid for quality management, communication skills, taking initiative and being creative.

E-skills will be relevant for the craft workers in the scenarios which include a strong e-business element. In the My Specialty Store scenario, craft workers will have more opportunities to provide their services and products as consumers will be looking for custom-made, high quality and traditional products and services. This will require well developed social perceptiveness, good understanding of the customer, multi-tasking as well as flexible and interdisciplinary solutions for the customer. In the Shop Around the Clock scenario, customers will demand flexible products and services anywhere, anytime. This requires an interdisciplinary approach, multi-skilling and flexibility. E-business will result in more service and repair at distance from the customer. In addition, the global competitive environment will ask timely delivery. This will require good analytical skills, good planning skills as well as stress and time management.



**Table 13.10 Emerging skills and competences: craft workers 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Technical and product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding supplier & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
Management skills	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
Customer relationship management					
Total emerging skills and competences		13	5	11	10

### **13.11 Motor vehicle drivers**

The number of motor vehicle drivers will remain more or less stable, with some small increases in the Shop Around the Clock and V-stores scenarios. In these scenarios transport can increase because of more online sales and delivery services, although it is also expected that the final transportation to the consumer is done by the postmen or by the consumers themselves (collecting the parcels at a distribution centre or in stores). In all scenarios, the pressure to deliver on time (just-in-time), to organise the transport as efficient as possible and to deal with very busy traffic will be high. This will require good planning and stress and time management skills. Acute situations such as changes in the distribution list require flexibility. International transport will be relevant in the Shop Around the Clock and the V-stores scenarios and these drivers will need to have good language skills. The trucks and vans will increasingly have new technologies inside (e.g. driver assistance). Also technology outside the vehicle (traffic management, car-to-infrastructure systems) etc. will call for a higher degree of e-skills and technical competencies (also in regard to vehicle maintenance).

**Table 13.11 Emerging skills and competences: motor vehicle drivers 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Technical knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding supplier & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
Management skills	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
	Customer relationship management				
Total emerging skills and competences		7	6	7	6

### **13.12 Machine operators**

Machine operators are workers operating machines used in, for example, food processing and textile and leather preparation. The number of machine operators will likely stabilise in the Shop Around the Clock and My Specialty Store scenarios, but decrease in the other two scenarios. In all scenarios it will be important to have good technical knowledge, especially of the latest developments in electronic machinery. Especially in the scenarios with fast technological change and adoption, it will be important to have good e-skills. Tight time schedules and just-in-time deliveries will require good planning and stress and time management skills. Flexibility is relevant because of constant changes in demand and custom-made products and services. In the My Specialty Store scenario, machine operators need to develop social perceptiveness in order to pick up the specific demands from the customers.

**Table 13.12 Emerging skills and competences: machine operators 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Technical and product knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding supplier & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
Management skills	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
Customer relationship management					
Total emerging skills and competences		7	6	7	7

### **13.13 Logistics workers**

Logistics workers are often low-qualified and unskilled workers. An increasing number of jobs will become automated, especially in the Shop Around the Clock and V-stores scenarios. This could imply that logistics workers may increasingly transform into machine operators and controllers, which will require more cognitive abilities. It will also require more e-skills and technical knowledge as more machines and computers will enter the work domain. Language skills will be relevant in the scenarios with a strong international dimension, because their supervisors and the clients will increasingly be international as well. The constant pressure on delivering on time and the demand for increased efficiency will require good process optimising, planning, and time and management skills. Changes in distribution schemes, just-in-time delivery schemes and other acute situations will require flexibility. Logistics workers will need to be aware of quality control procedures, i.e. temperature controlled storage.

**Table 13.13 Emerging skills and competences: logistics workers 2009-2020**

		<i>Shop Around the Clock</i>	<i>Shopping Malls Rule</i>	<i>V-stores</i>	<i>My Specialty Store</i>
Knowledge / hard skills	Legislative & regulatory knowledge				
	e-skills				
	Technical knowledge				
	Supply chain management knowledge				
Social skills	Team working skills				
	Social perceptiveness				
	Communication				
	Networking				
	Language				
	Intercultural				
Problem solving skills	Analytical skills				
	Interdisciplinary				
	Initiative				
	Multi-skilling				
	Creativity				
Self management	Planning				
	Stress & time management				
	Flexibility				
	Multi-tasking				
Entrepreneurship	Understanding supplier & customers				
	Business development				
	Marketing skills				
	Trend setting / spotting				
Management skills	Strategic & visionary				
	Coaching & team building				
	Collegial management style				
	Change management				
	Project management				
	Process optimizing				
	Quality management				
	Customer relationship management				
Total emerging skills and competences		9	6	9	6





## Part III.

### Available Options to Address Future Skills and Knowledge Needs, Conclusions and Recommendations

## Part III. Available Options to Address Future Skills and Knowledge Needs and Recommendations - Guide to the reader

In the final third part of this report, a range of main strategic options ('choices') is reviewed, including possible actions in education and training. The report concludes with a number of conclusions and recommendations for the sector (individual firms, sector organizations, others) and policy-makers at various levels, ranging from the EU to the local level. Part III reflects steps 7 (Main strategic choices), 8 (Main implications for education and training) and 9 (Main recommendations) of the common methodology. Its contents are as follows: Chapter 14 highlights the various strategic choices in response to future skills and knowledge needs. Chapter 15 focuses on specific implications for education and training. Chapter 16 concludes by providing a number of key recommendations and conclusions.

## **14 Strategic choices to meet emergent skills and knowledge needs**

### **14.1 Introduction**

This chapter identifies the main strategic choices to meet the skills and knowledge needs identified (step 7). It provides a framework to pick and select the most relevant strategic choices – i.e. solutions to meet future skills and knowledge needs - available. Strategic choices refer and relate to the medium- and longer term, even though emerging skills needs in practice may also apply to the now and tomorrow. Essential in seeking appropriate solutions is to keep this longer time perspective in mind. Rather than focusing on one single solution, a set of linked strategic choices will in most cases be the best strategy to follow. Prioritising both in time (what first, where to follow up) and in allocation of resources (budgetary focus) followed by further fine-tuning is a clear necessity to guarantee that skills needs are targeted and solved. Skill needs can be identified at various levels, ranging from assessments at the national or even European sector level - which are by nature rather general - to more precise assessments at the regional and company level. Especially for large enterprises not only the identification of skills needs but also the search for adequate solutions will be an integral part of an overall longer-term business strategy. Some solutions will be found within the company itself, for instance by reorganising functions within or between plants, by offering (re)training trajectories and by active global sourcing of personnel. For SMEs and especially for micro-enterprises such longer-term, more strategic human resource management often will be more difficult to organise and operationalise. It should be emphasized that at all possible levels identified different actors need to act to address skills needs and offer solutions and preferably also in close concert. These can be individual firms, organised interests at the sector level (employers and employees), but also others. Local, regional and national governments have also a important role to play. This chapter offers first of all a better insight in the ‘menu’ of possible strategic choices (section 15.2). It also provides for a framework that can identify skills needs at the appropriate level and helps to decide which should be the actual choices to be made (see section 15.3). This framework is subsequently applied to the distribution and trade sector (section 15.4).

### **14.2 Possible strategic choices**

The possible strategic choices contained in this chapter refer to the strategic choices originally proposed by Rodrigues (2007: 42) as well as a number of other, additional choices. Whereas *strategic* choices mostly refer to the medium and longer term, most of the choices mentioned can also be implemented in the short run, to ‘mend’ existing skills shortages and/or skills gaps. Each of the solutions at hand differs in whether or not it can resolve direct skills shortages and/or gaps. A longer term horizon, however, means that there is possibility of adapting, steering and fine-tuning the available solutions towards a more optimal allocation of skills supply and demand. In view of the time horizon, the period up to 2020, the strategic choices and instruments with a more long-term impact especially need to be addressed. Identification of possible solutions obviously is not enough. Concrete initiatives, policy and strategic decisions need to be taken at all appropriate levels with each actor having a different responsibility and a different role to play.

Strategic choices to meet future skills needs need to be taken by a number of actors and at different levels (firm, local, regional, national, sectoral). For obvious reasons, firms are an important player in finding solutions for the skills needs – both in volume (skills shortages) and in matching any existing skills gaps. Companies avail of a number of options to meet their skills needs. These include:

- A. Recruiting workers from other sectors
- B. Recruiting workers from other Member States
- C. Recruiting workers from non-Member States
- D. Recruiting unemployed workers with or without re-training
- E. Recruiting young people coming from the education system, with or without re-training (first job recruits)
- F. Training employed workers
- G. Changing the work organisation (including network collaboration and mergers)
- H. Outsourcing and offshoring.

Sectoral organisations, educational institutions and governments also have a role to play. They will be the prime actors in addressing the following options:

- I. Changing general and vocational education
- J. Designing and offering new courses (continuing vocational education and training)
- K. Providing information about jobs and (emerging) skills: career guidance; updating job profiles regularly.
- L. Improve the image of the sector (joint action of companies together)
- M. Stronger cooperation with the industry (internships, company visits for participants in education, image improvement).

A more detailed description of these strategic options can be found in annex III. Whether these strategic options are feasible and viable depends on a number of factors. In order to discuss and select from the available list of strategic options, one should first - as described in the introduction - know whether and when skills needs are indeed likely to arise, both in quantitative (number of job functions) and in qualitative terms (what knowledge and skills). An important question that needs to be addressed first is at what level and to whom the skills needs question applies. Obviously for an individual firm different information is required for identifying these needs and taking the right action than for a national ministry or a training institute.

The identification of possible strategic choices would in principle require extensive and detailed future analysis at the Member State and preferably also the regional level of skills and knowledge demand and supply patterns by job function and sub-sector, in a similar way and along the steps provided by the methodology of this study so far. The methodology and step-wise approach followed are applicable at the national and regional level of analysis. Ideally, these results should be complemented by the results of labour market model forecasts to corroborate results. Such an analysis would also need to include an assessment of the numbers and skills composition of currently being educated, i.e. an assessment of all cohorts of primary, secondary and tertiary pupils and students (and their skills potential) currently in the educational system and arriving at the labour

market in the oncoming years. It would need a thorough assessment of the current educational and training system itself, including the already decided changes herein for the oncoming years, to see whether the system as it is now in place is able to satisfy the prevailing and future new skills demands both in terms of numbers of new potential recruits and in terms of skills and knowledge.

### **14.3 Matching future skills and knowledge needs by making the right choices**

In order to address the identified future skills and knowledge needs in an encompassing and timely manner, appropriate joint action is needed by all stakeholders, including the industry (firms, sector organisations and social partners), training and education institutes, intermediary organisations and, last but not least, government at all levels (EU, national, regional and local). Collaboration and co-operation between stakeholders will be needed, at all decision-making levels, in order to agree on and implement a package of feasible solutions. In order to prepare for this, timely, targeted and reliable information is essential.

This section presents a targeted short-cut strategic options decision tool to enable and support decision-makers in making the right (mix of) choices, supported by appropriate and reliable information on actual needs, possible choices and stakeholders to be involved. The strategic options decision tool is aimed to provide answers and solutions at the job function level and consists of a shortlist of a number of key questions - a concise menu of choice -, with answers providing decision-relevant information about the need and viability of available options. The questions need to be answered at the national, and where relevant at the regional level so as to map and identify the specific sector needs. The decision tool can also be used at the level of the firm. New job function information (e.g. new upcoming functions) can be added where thought relevant.

The key question list – consisting of six ‘framing’ questions, followed by option-specific questions - should be filled in for each job function. The ‘framing’ questions constitute a summary of main expected quantitative and qualitative skills needs developments. The filling in of the list should, however, only be done on the basis of an informed discussion between several stakeholders involved, representing together an informed body of knowledge on the various aspects at stake, including labour market developments and prospects at the sub-sector level, skill and knowledge requirements at job function level and developments in and make up/orientation of the educational and training system.

#### **Key questions for identifying skills and knowledge needs**

Question 1. Is the demand for workers expected to decrease or increase between now and 2020? (both related to market prospects and replacement demand due to ageing)

If decreasing, there is probably less need for recruiting workers from other sectors and (non-) Member States and less need for recruiting unemployed.

If increasing, analyse whether less radical options are enough to meet demand or whether options should be chosen like recruiting workers from other sectors and (non-) Member States and recruiting unemployed. *[Note: see Table 12.1 and 12.2 for estimated volume effects per scenario.]*

Question 2. Are the required qualitative skills expected to be rather stable between now and 2020?

If there are not many changes in required skills and knowledge, there is probably no need to apply many strategic options. Please focus on the options that are most effective.

If many skills and knowledge categories are changing, there is probably a need to apply many strategic options. Create a package of strategic options to meet skill needs. *[Note: see Table 13.2 and following for the number of competences changing per job function per scenario.]*

Question 3. Do SMEs and especially small companies (including micro enterprises) play a large role in the sector?

If yes, several options (like recruiting) are less viable for companies themselves as it is often difficult for small companies to organize this. If this is the case, sector organisations or intermediary organisation might play an important role in helping to match supply and demand. Another solution could be found in changing the work organisation. Through cooperation or mergers, for instance, the relevant scale can be increased which makes it easier to use these options. The same holds, more or less, for the organisation of training and re-training. Larger (associations of) companies have less difficulties to organise this and the need for support from other actors is lower. *[Note: see Table 3.7 for number of firms per size class.]*

Question 4. Are companies in general active on Member State level, EU level or global level?

Companies who are active on a larger regional level will have, in general, more opportunities to use the option of recruiting workers from other Member States (for companies active at the EU level) and the option recruiting workers from non-Member States (for companies active at the global level). The same holds for the option offshoring. *[Note: see chapter 3]*

Question 5. Are workers in a job function in general low-educated?

If yes, training is less easy to implement as a viable option as difficulties arise in organising this, while the need for training might be even higher. *[Note: see Table 3.8 to 3.11, for education shares]*

Question 6. Are workers in a job function in general old (i.e. older than the average age in the subsector and compared to other sectors)? *[Note: see section 3.3, for age structure.]*

If yes, training is less easy to implement as a viable option as difficulties arise in organising this and less new knowledge endogenously enters the companies, while the need for training might be even higher.

### **Key questions for identifying suitable options and relevant acting stakeholders**

The six questions form the first part of the short-cut approach. The second part discusses the viability of strategic options to tackle and solve emergent skills and knowledge needs for each of the job functions identified. It confronts the list of available strategic options with the analysis of quantitative and qualitative developments on headlines based on the preceding six questions. For each job function identified an assessment is made on whether the available strategic options are relevant or not, and who should be prime actors to change the current situation into a more favourable direction. If the strategic option is considered relevant, a “yes” is filled in; else a “no” is included. If the strategic

option is dependent on specific characteristics of the sub-sector or components thereof, this is included in the table. For example, if recruiting workers from other Member States is only an option for large companies a “Yes, but only for large companies” will be included. Characteristics that are dealt with in the table are based on the six question analysis, representing:

- The change in volume (as a reference we include the most difficult scenario, which is often the scenario with the largest increase)
- The change in skills (as a reference we include the most difficult scenario, which is often the scenario with the largest change in skills and knowledge needs)
- Education level
- Age of the workforce
- Scale of the company and region the company is working in.

#### **14.4 Managers of SMEs**

In Table 14.1 strategic options for managers of SMEs are outlined. The quantitative development of managers of SMEs in distribution and trade is difficult to assess (for details see chapter 12). In Shop Around the Clock the number of managers is expected to increase while in the scenario Shopping Malls Rule there is a tendency of managers to decrease in numbers. Also in the scenarios with a strict, none harmonised regulation the quantitative development is showing different development paths: in V-stores the number of SME managers is expected to stabilise while in the scenario My Speciality Store the number of managers is expected to increase in the future. Due to the fact that a large number of managers of SMEs are also the owners (of the retail shop, franchise business or family business) not all strategic options are viable on a large scale. Only for larger SMEs in retail and wholesale all options are conceivable.

Apart from the above stated restrictions recruiting managers from other sectors is a conceivable option in the Shop Around the Clock and V-stores scenarios, where internationalisation and global competition is growing and mass customisation is at stake. In these scenarios recruiting experts from transport or storage businesses is a quite feasible option because of a greater international accessibility of products caused by technological progress. However, experts may also be recruited from the related production sector. Recruiting managers from other Member States and Non-member States is less likely as SMEs in retail are very locally-oriented businesses. Recruiting unemployed managers is a viable option in those scenarios where an increase in the number of managers is expected such as the Shop Around the Clock and the My Speciality Store scenario. In the other cases this will not be really necessary. An update of sector specific skills is likely to be necessary. Recruiting young personnel from the education system is mainly a viable option for larger SMEs and not for micro businesses where the manager is also the owner of the business. The most important strategic option in particular for SME managers, which are also owner of the business, is training and up-skilling (see also implications for education and training). As laid out in the data, there is a trend towards medium skills level for SME managers in retail – the numbers of low skilled and high skilled managers are decreasing. Additionally, there is a remarkable large number of low skilled SME managers. Adequate training possibilities for this group, also integrating basic business skills should be offered. Changing work organisation as well as outsourcing or offshoring are options of low viability for micro businesses. For larger

SMEs both could be seen as strategic options to gain, re-gain or pool different skills to address the future demand. Enhancing team work could be one possibility to improve or widen the skills basis; another is to outsource some of the management functions to freelancers or contract workers. This could be sensitive in all scenarios for entrepreneurial skills, but could also be conceivable for other emergent skills. Changing initial vocational training for this occupational function is a viable option. Due to the fact that running an own business in distribution and trade is not limited by a certain qualification there is not a certain initial vocational training scheme and only few SME managers actually have a degree in higher education (Manshanden et al. 2009, Table 9.5). Economic studies provide specialisations in wholesale and retail distribution and trade. As a result of the changing business environment caused by e-commerce, globalisation and to some extent regulation, a stronger accentuation of language and intercultural skills as well as change management skills in the Shop Around the Clock and V-stores scenarios are viable options to equip managers with the ability to adapt to the changing business environment. Moreover, a stronger practice orientation in retail economic studies and a stronger support of Bachelor students in finding placements are viable options.

What is more important, however, is to provide further training for the existing SME managers in order to adequately support them. Particularly with regard to emergent skill needs, and also with regard to the ageing workforce of shop owner-managers, training of transferring the business to successors should be designed and provided and human resource management should be strengthened. In European cities special trainings for migrant SMEs and micro business managers will also become more important. This training should comprise basic management and knowledge about regulation but also change management skills. Both will be more necessary in the Shop Around the Clock and V-stores scenarios than in the other scenarios. Providing information about the emergent skills is an important strategic option. For this reason and for the purpose of strengthening further training for SME managers a stronger co-operation of stakeholders in the sector is a viable option to react on the emergent skill needs. An improvement of the image of the sector for this occupational function is necessary for young high educated managers. The sector is not very attractive for them as a first job. Setting up a MBA for managers of SMEs could help to attract these young educated people. .



**Table 14.1 Strategic options for managers of SMEs**

1. What is the maximum volume effect?	Increase
2. What is the maximum change in skills?	21
3. Do SMEs play a large role?	Yes
4. Is the sector national/EU/global?	National/
5. Is the workforce old?	Yes <sup>32</sup>
6. Is the workforce low educated?	No <sup>33</sup>

Option	Is this option viable?	Actors <sup>1</sup>
A. Recruiting workers from other sectors	Yes, for larger SMEs in the growth scenarios.	C
B. Recruiting workers from other Member States	Less likely for local SMEs.	C
C. Recruiting workers from Non-member States	Less likely for local SMEs.	C, G
D. Recruiting unemployed with or without re-training	Yes, for larger SMEs in scenarios where numbers expected to increase.	C, E, I, G
E. Recruiting young people from the education system	Yes, for larger SMEs in scenarios where numbers are expected to stay stable or increase.	C, G
F. Training and re-training employed workers	Yes, for all managers an important option.	C, E, S, I
G. Changing work organisation	Yes, for larger SMEs e.g. teamwork to combine several skills.	C
H. Outsourcing and offshoring	Yes, for larger SMEs outsourcing certain management functions to freelancer is viable in all scenarios.	C
I. Changing vocational education	Yes, stronger integration of practice cases and support of especially bachelor students in finding placements.	E, C, I, G
J. Designing and offering new courses	Yes, in the emergent skills, and for transferring business and for migrant business.	E, S, I, C, G
K. Providing information about emerging skills	Yes, in particular for Micro businesses.	E, S, I, C
L. Improve the image of the sector	Yes, necessary for young high educated managers in their first job	S, I, E
M. Stronger cooperation between stakeholders	Yes, in particular to develop new courses and to exploit the innovation potential of the sector.	E, S, C, I, G, U

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments and regulators), I (intermediary organisation, public or private), U (trade unions).

<sup>32</sup> 35% older than 50 years and 31% aged between 40 and 49 years (see data annex). While ageing of (SME) managers is at stake, age per se is not a barrier for employability or high productivity. This is particularly true for management functions. The participation rate of older workers in further training is generally low.

<sup>33</sup> Statistics show that 33% of managers of SMEs are low educated, which is a remarkable and comparatively high percentage. 50% of managers are medium educated.

## 14.5 Specialist managers

In Table 14.2 strategic options for specialist managers are outlined. Specialist managers are a quite heterogeneous group, containing accounting and finance, sales and marketing as well as personnel managers. Their numbers are expected to increase in the Shop Around the Clock scenario. In all other scenarios their numbers are expected to stay stable with a slight tendency to increase in the scenario V-stores.

Due to the common general skills of each specialist management function and their prevalence in larger SMEs and multi-national companies many strategic options are viable. The correct choice will be more important in the Shop Around the Clock scenario where the number of managers is expected to increase, in contrast to the other scenarios in which their numbers are expected to stay stable. Recruiting workers from other sectors, from other Member States and Non-member States are not very relevant options, as recruiting takes mainly place locally, also of foreign employees. Recruiting unemployed specialist managers is not viable at all, as high educated and specialist managers are needed. Recruiting young people from the education system is a viable option to meet the increasing demand in the Shop Around the Clock scenario and the natural replacement demand in the other scenarios. Training of specialist managers is a viable and most important option to address the emerging skill demands. Especially sector specific skills and knowledge about the supply chain are becoming more important for this group. This refers also to the emergent need for a better understanding of supplier and customers. Changing the work organisation is relevant in the V-stores scenario. Outsourcing and offshoring of some management functions are viable options, although not for vital and strategic management functions. Changing vocational education, particularly higher education is a viable option. The accentuation of language and intercultural skills in the Shop Around the Clock and V-stores scenarios as well as a stronger emphasis on placements within studies and practice case studies are viable options. A stronger modularisation of continuing vocational training and stronger consideration of business practice within further training are also viable options. In the scenario V-stores the supply of e-commerce training and related issues such as contract management and security should be expanded. For HR managers, diversity related recruiting strategy skills seem necessary in all scenarios to react on the emergent trends with regard to the ageing workforce. This option can also be applied to Shop Around the Clock and V-stores scenarios in order to respond to the trend of internationalisation. Education providers together with companies and social partner organisation can support these strategic options.

Providing information about emerging skill needs is essential for offering optimal placement possibilities. Hence, for designing new courses and providing information about emerging skill needs, a stronger co-operation of the relevant stakeholders is required. An improvement of the image of the sector could help to attract more young, high educated managers by emphasising career opportunities.

**Table 14.2 Strategic options for specialist managers**

1. What is the maximum volume effect?	Increase	
2. What is the maximum change in skills?	22	
3. Do SMEs play a large role?	Yes	
4. Is the sector national/EU/global?	National/ EU	
5. Is the workforce old?	No	
6. Is the workforce low educated?	No	
<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1</sup></b>
A. Recruiting workers from other sectors	Yes, a viable option in the scenario Shop Around the Clock.	C
B. Recruiting workers from other Member States	No, recruitment takes place locally, even if this may include foreign workers. Yes applies to top management of the largest companies; they form an exception.	C
C. Recruiting workers from Non-member States	No, recruitment takes place locally, even if this may include foreign workers.	
D. Recruiting unemployed with or without re-training	No.	
E. Recruiting young people from the education system	Yes. Apprenticeships; in company education.	C, E
F. Training and re-training employed workers	Yes, in all scenarios in the emergent skills. Most important option.	C, E, I, S
G. Changing work organisation	Yes, especially in the V-store scenario.	C, U
H. Outsourcing and offshoring	Yes, already taking place (e.g. ICT) and will become even more viable in the growth scenarios. Not in vital and strategic functions though.	C
I. Changing vocational education	Yes, a stronger accentuation of language, intercultural skills and soft skills such as team working.	E, C, S, I, G
J. Designing and offering new courses	Yes, in all scenarios a stronger consideration of business practice in training is viable.	E, C, I, S, G
K. Providing information about emerging skills	Yes, to avoid mismatch on the labour market.	E, C, I, S
L. Improve the image of the sector	Yes, to improve appeal and by emphasizing career perspectives.	C, S, I, E
M. Stronger cooperation between stakeholders	Yes, to provide information and design new courses.	E, S, C, I, U, G

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments and regulators), I (intermediary organisation, public or private), U (trade unions).

## 14.6 Health professionals

In Table 14.3 strategic options to meet the emergent skill demands of health professionals are outlined. It should be noted however, that the table and the analyses refers to pharmacists only. Strategic options for the wholesale of pharmaceutical products are outlined within the group of sales and marketing professionals (see section 1.5). While the quantitative development of the other occupational functions in the sector is mainly driven by technological developments and the economic growth of the sector, the limits on the numbers of health professionals set by regulations needs to be given more consideration. Their numbers are expected to stay stable in the Shop Around the Clock and Shopping Malls Rule scenarios, while their numbers are expected to decrease in the V-stores scenario and to increase in the My Speciality Store scenario.

Recruiting workers from other sectors does not constitute a viable option because of the specific qualification of pharmacists. Recruiting pharmacists from other Member States is more easily feasible since 2007 because of the European Directive EG 2005/36, although the national or regional approval of competences is still necessary. Recruiting pharmacists from Non-member States is more complex because the EU regulation does not apply to third countries. Due to the low numbers of pharmacists within the group of unemployed, recruiting unemployed pharmacists is of very limited scope. Training of health professionals on the emergent skill needs is the most important strategic choice. In V-stores especially e-commerce skills are necessary, while in the My Speciality Store scenario social perceptiveness as well as trend setting and spotting becomes more important. Changing work organisation does not present a viable option due to the limited possibilities in pharmaceuticals retail. However, outsourcing and offshoring provides viable possibility in the scenario V-stores. A stronger integration of business aspects in pharmaceutical studies could be conceivable although a major change in education is not necessary. Training institutes do not necessarily have to provide totally new trainings, but more e-skills training and in the V-stores scenario e-commerce trainings for health professionals.

Providing information about emerging skill needs is essential for offering optimal placement possibilities. Hence, for designing new courses and providing information about emerging skill needs, a stronger co-operation of the relevant stakeholders is required. In this occupational profile governing bodies play a crucial role. An improvement of the image of the sector is not necessary.

**Table 14.3 Strategic options health professionals**

1. What is the maximum volume effect?	Increase/maintain	
2. What is the maximum change in skills?	9	
3. Do SMEs play a large role?	Yes	
4. Is the sector national/EU/global?	National/ EU	
5. Is the workforce old?	No	
6. Is the workforce low educated?	No	
<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1</sup></b>
A. Recruiting workers from other sectors	No	-
B. Recruiting workers from other Member States	Yes, a viable option in the scenario My Speciality Store.	C, G
C. Recruiting workers from Non-member States	Yes, a viable option but very restricted due to regulation.	C, G
D. Recruiting unemployed with or without re-training	Yes, but very limited in scope	C
E. Recruiting young people from the education system	Yes, to meet the natural replacement demand and the rising demand in My Specialty Store.	
F. Training and re-training employed workers	Yes, in the emergent skills, in particular business skills in the growth scenarios and e-skills.	C, E, I, S
G. Changing work organisation	No	
H. Outsourcing and offshoring	Yes, in particular in the V-store scenario.	C
I. Changing vocational education	No	-
J. Designing and offering new courses	Yes, e skills in general and e-commerce in V-stores scenario.	E, C, S, I, G
K. Providing information about emerging skills	Yes	E, S, C, I
L. Improve the image of the sector	No	-
M. Stronger cooperation between stakeholders	Yes	C, E, S, I, G, U

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments and regulators), I (intermediary organisation, public or private), U (trade unions).

## 14.7 Accounting & finance professionals

Table 14.4 presents viable options for finance and accounting professionals. Their numbers are expected to decrease in the scenarios with fast technological change and adoption as well as good regulation and to maintain in the scenario with slower technology adoption and poor regulation. This implies that only natural replacement demand has to be met. Owing to the common general skills of accounting and finance professionals, recruiting experts from other sectors, Member States and Non-member States is viable, though for the latter an adaptation of competences and qualification to national standards will be necessary. Recruiting unemployed bookkeepers or other professionals is a viable option to meet the natural replacement demand but it is limited in scope at the higher end of these professions due to the general low numbers of high qualified professionals among the unemployed. Moreover, recruiting young specialists from the education and training system presents another viable option. Training and perhaps re-training of the existing workforce will be necessary in all scenarios, in particular in e-skills, legislative and regulatory knowledge and in few management skills. Changing work organisation is a possibility to combine skills of different occupational profiles to fulfil future tasks. Outsourcing and offshoring for some accounting and finance functions such as bookkeeping is a viable option.

Changing vocational education does not seem necessary, only continuing adaptation to a new regulative environment and technological developments. This particularly applies to the Shop Around the Clock scenario. The design of new courses and the stronger modularisation of further training as well as more flexible learning tools constitute an important option to address the emerging skill demands.

Providing information about emerging skill needs is essential for offering optimal placement possibilities. This is especially needed in the scenarios with fast technological change. Hence, for designing new courses and for providing information about emerging skill needs, a stronger co-operation of the relevant stakeholders is required. An improvement of the image of the sector is not necessary.

**Table 14.4 Strategic options Accounting & Finance**

1. What is the maximum volume effect?	Decrease / Maintain	
2. What is the maximum change in skills?	4	
3. Do SMEs play a large role?	Yes	
4. Is the sector national/EU/global?	National/ EU	
5. Is the workforce old?	No	
6. Is the workforce low educated?	No	
<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1</sup></b>
A. Recruiting workers from other sectors	Yes, a viable option due to sector independent skills.	C, E
B. Recruiting workers from other Member States	Yes, but limited, due to national accounting regulation. More viable for large firms.	C
C. Recruiting workers from Non-member States	Yes, but limited due to national accounting regulation. More viable for large firms.	C, G
D. Recruiting unemployed with or without re-training	Yes, but limited in scope (training is needed).	C, E, I
E. Recruiting young people from the education system	Yes	C, E
F. Training and re-training employed workers	Yes	C, E, S, I
G. Changing work organisation	Yes, teamwork to combine several skills.	C, U
H. Outsourcing and offshoring	Yes, an option for some functions.	C
I. Changing vocational education	No	-
J. Designing and offering new courses	Yes, more flexible training and tools.	E, S, C, G, I
K. Providing information about emerging skills	Yes to avoid labour market mismatch.	E, S, C, I
L. Improve the image of the sector	No, not needed for this occupational function.	-
M. Stronger cooperation between stakeholders	Yes, to adapt training and information about skill changes.	E, S, C, G, U, I

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments), I (intermediary organisation, public or private), U (trade unions).

## 14.8 Sales & marketing professionals

Table 14.5 presents viable options for sales & marketing. In the Shop Around the Clock and V-stores scenarios the occupational functions for sales and marketing are expected to increase in volume whilst in the Shopping Malls Rule and My Specialty Store scenarios the volume of employment is likely to stay stable. The scenarios do not differ strongly with respect to emergent skills and competences. The majority of the emerging skills are genuine marketing and sales skills, only few are of sector-specific nature, such as specific e-skills.

Also due to the common general skills of sales and marketing professionals there is no restriction on strategic options, in particular in the economic growth scenario where their numbers are expected to increase. Thus, recruiting professionals from other sectors, from other Member States and Non-member States are viable options. Certainly sector specific training and knowledge about the culture of the market is necessary. Recruiting unemployed professionals is also a viable option, but will be limited in scope at the higher end of this function. Recruiting young people from the education system is a more viable option, either to meet the natural replacement demand or to meet the increasing demand in the Shop Around the Clock and V-stores scenarios. Training of the existing workforce is a viable strategic option especially to reach short term impact. Besides training of e-skills, management and entrepreneurship skills – which will be emergent in all scenarios – language and intercultural skills are prevalent in the Shop Around the Clock and V-stores scenarios. Moreover, skills in social perceptiveness will be emerging in the scenario My Specialty Store. Changing work organisation, in explicit to teamwork, is a viable strategic option to combine several skills needed in the scenarios. Outsourcing and offshoring of some sales as well as marketing functions to other firms or freelance personnel could help to gain new skills such as intercultural knowledge for entering new markets and to address different target groups with an e-commerce platform. A major change of higher education does not seem necessary in this occupational function, but placement of students should be promoted to gain early practice knowledge. The development of new courses and training is a viable option. Especially flexible and modular trainings and tools should be developed and offered by training institutions and sector representatives.

Providing information about emerging skill needs is essential for offering optimal placement possibilities. This is especially needed in the scenarios with a strong internationalisation. Hence, for designing new courses and the provision of information about emerging skill needs, a stronger co-operation of the relevant stakeholders is required. An improvement of the image of the sector is necessary for attracting young, high educated professionals by showing career opportunities.



**Table 14.5 Strategic options for Sales & Marketing**

1. What is the maximum volume effect?	Increase	
2. What is the maximum change in skills?	14	
3. Do SMEs play a large role?	No	
4. Is the sector national/EU/global?	National / EU / regional	
5. Is the workforce old?	No	
6. Is the workforce low educated?	No	
<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1</sup></b>
A. Recruiting workers from other sectors	Yes, but sector specific knowledge and training are needed.	C
B. Recruiting workers from other Member States	Yes, a viable option for strategic and operative marketing.	C, G
C. Recruiting workers from Non-member States	Yes, a viable option for strategic and operative marketing.	C, G
D. Recruiting unemployed with or without re-training	Yes, but limited in scope.	C, E, I, G
E. Recruiting young people from the education system	Yes	C, E, S
F. Training and re-training employed workers	Yes, especially e-skills and entrepreneurship skills need to be increased.	C, E, I, S
G. Changing work organisation	Yes, in order to strengthen soft and hard skills.	C, U
H. Outsourcing and offshoring	Yes	C
I. Changing vocational education	Yes	C, E, I, S, G, U
J. Designing and offering new courses	Yes, courses need to be offered regarding sector specific knowledge and e-business skills. Flexible forms of training are essential.	C, E, I, S, G
K. Providing information about emerging skills	Yes to prevent labour market mismatch.	C, E, I, S, U
L. Improve the image of the sector	Yes	C, S
M. Stronger cooperation between stakeholders	Yes, in to order to design new courses and provide information about emerging skills.	C, S, E, G, I, U

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments), I (intermediary organisation, public or private), U (trade unions).

## 14.9 Supply chain management

Table 14.6 outlines the strategic choices for supply chain managers. Their numbers are expected to increase in the Shop Around the Clock scenario, while in the Shopping Malls Rule and My Specialty Store scenarios their numbers are expected to stay stable. In the V-stores scenario the number of supply chain professionals will decrease, mainly because of disintermediation and integration of the value chain. Supply chain managers are mainly operating in larger companies in the wholesale and retail sector (food, home improvement, textiles, furniture, and electronic articles). Owing to the common general skills of supply chain managers or logistic professionals all strategic options are viable.

Recruiting professionals from other sectors, such as the transport sector or industry sectors alongside the supply chain is a viable option, especially in the Shop Around the Clock scenario, where global sourcing and distribution will develop strongly. Yet, also recruiting professionals from other Member States and even Non-member States is conceivable. In this case, however, national regulation (e.g. taxation) will have to be trained. Recruiting unemployed experts will be a viable option in the scenario where an increase in the numbers of supply chain managers is expected. It is more viable, however, to recruit young and freshly trained professionals, who already have the necessary basic skills, from the education system. Training of employees is an important strategic option in order to adapt them to the emerging skill needs, including both social and hard skills.

Changing work organisation will necessarily be an important option in the Shop Around the Clock scenario, where global sourcing and technological change progresses fast and mass customisation is prevalent. Particularly teamwork to combine SCM skills with purchasing skills is a viable option. Job enlargement of the one or the other job function is also conceivable. Although less complex supply chains can be expected in the My Speciality Store scenario, where regional supply and value chains are prevalent, job enlargement filling emerging gaps will also be a viable option. Outsourcing and offshoring of SCM will be more viable in the Shop Around the Clock and V-stores scenarios where product sourcing is global. In the My Speciality Store scenario outsourcing is a viable option while offshoring has less probability due to more regional distribution channels.

For supply chain management in general a medium or higher education is necessary. Changing initial vocational education on medium level seems to be a viable option in the Shop Around the Clock and V-stores scenarios with a high competition. A stronger modularisation and more practice training on the job in order to adapt apprentices' skills and qualification stronger to specific business needs is a viable and important option. This holds true - to a lesser extent - for higher education. Training alongside business practice cases and an expansion of practice orientated higher education such as universities of co-operative science are options. For apprentices and for a general improvement of continuing vocational training, more certified as well as more European wide accepted digital and web based trainings should be developed and applied (see also implications). These will be more viable in the Shop Around the Clock and V-stores scenarios than in the other two scenarios.

Providing information about emerging skill needs is essential for offering optimal placement possibilities. Especially the impact of technology (e.g. RFID<sup>34</sup> and e-tailing and e-commerce) should be assessed on an ongoing basis. This is especially needed in scenarios with a strong internationalisation and fast technological changes, yet it could also be applied to in the other scenarios. For the designing of new courses and the provision of information about emerging skill needs, a stronger co-operation of the relevant stakeholders is required. An improvement of the image of the sector is not necessary.

**Table 14.6 Strategic options Supply Chain Management**

1. What is the maximum volume effect?	Increase	
2. What is the maximum change in skills?	9	
3. Do SMEs play a large role?	Yes	
4. Is the sector national/EU/global?	National/ EU	
5. Is the workforce old?	No.	
6. Is the workforce low educated?	No.	
<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1</sup></b>
A. Recruiting workers from other sectors	Yes, but sector specific training is needed.	C, E
B. Recruiting workers from other Member States	Yes, but limited in scope due to skill shortages.	C
C. Recruiting workers from Non-Member States	Yes, but limited in scope due to skill shortages and relative low wages in Europe.	C, G
D. Recruiting unemployed with or without re-training	No, the option is not realistic due to less qualified personnel.	-
E. Recruiting young people from the education system	Yes, but sector specific training is needed.	C, E
F. Training and re-training employed workers	Yes, an option in order to meet the emergent hard and soft skills.	C, E, I, S
G. Changing work organisation	Yes, for a better matching of the hard and soft skills. More viable for large firms in growth scenarios. Job enlargement will be also viable.	C, E, U
H. Outsourcing and offshoring	Yes, the option is viable for all SCMs as well as for parts of it.	C
I. Changing vocational education	Yes, in order to strengthen sector specific skills and practice knowledge.	C, E, I, S, G
J. Designing and offering new courses	Yes, mainly for enhancing (sub-) sector specific and soft skills. Flexible forms of training are essential.	C, E, I, S, G
K. Providing information about emerging skills	Yes, in order to better match skill supply and demand.	C, E, I, S, U
L. Improve the image of the sector	No, not necessary for this occupational function.	-
M. Stronger cooperation between stakeholders	Yes, in order to improve the matching of skill supply and emerging demand.	C, S, E, G, I, U

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments), I (intermediary organisation, public or private), U (trade unions).

<sup>34</sup> Radio frequency identification, for details please see Part 1

## 14.10 Administrative support staff

Table 14.7 presents the strategic options for administrative support staff... Their numbers are expected to decrease in the Shop Around the Clock and the V-stores scenarios and in the Shopping Malls Rule scenario. They will increase in the My Speciality Store scenario. Therefore, mainly skill gaps have to be addressed. Administrative support staff are one of the youngest occupational groups; therefore also the replacement demand will be low.

Due to the common general office and administration skills, such as basic internet, spreadsheet and word processing competences, recruiting administrative support staff from other sectors is generally a viable but not necessary option. Additionally, this option is also limited by the emergence of (sub-) sector specific hard skills. This also holds true for recruiting clerks from other countries. Provided that the language gap can be bridged this is a viable, yet not necessary, option. Recruiting unemployed administrative support staff is a viable option. Large retailers like Carrefour have specific programmes to hire unemployed staff. Recruiting young people to meet the low replacement demand is a viable option as well. The training of administrative support staff is the most important option. In the case of this occupational function even re-training and up-skilling for more promising functions, such as supply chain manager or sales professional, could be seen as a viable option. Besides training in the before mentioned hard skills, training will be needed in emerging self-management and problem solving skills. Changing work organisation, in particular team work or job enlargement (with some supply chain functions), could be helpful to combine hard skills with softer skills. Outsourcing and offshoring of administrative tasks will be a viable option in the Shop Around the Clock and V-stores scenarios, but both are also conceivable in the other two scenarios. In general this will be supported by the technological change. Changing initial vocational training (IVET) is a viable option to react on the emerging skill demands and on the general changes in the business environment. Especially in the Shop Around the Clock and V-stores scenarios a stronger flexibility and modularisation of IVET is a viable option to react on the skill needs in a stronger competitive business environment. Providing flexible tools, instruments and training forms such as blended learning will also constitute a feasible and important possibility. This, moreover, can be applied to the other two scenarios, as well. A stronger emphasis on sub sector specific skills in training and the integration of practice cases will be especially needed in the scenarios where mass customisation is prevalent.

Providing information about emerging skill needs is essential for offering optimal placement possibilities. For this occupational function especially volume changes should be strongly considered and recommendations for up-skilling and re-training should be integrated on a regional information basis. This is particularly needed in those scenarios with a strong internationalisation and fast technological changes, yet it could also be applied in the other scenarios. Hence, for the designing of new courses and the provision of information about emerging skill needs, a stronger co-operation of the relevant stakeholders is required. An improvement of the image of the sector is necessary.

**Table 14.7 Strategic options administrative support staff**

1. What is the maximum volume effect?	Increase	
2. What is the maximum change in skills?	11	
3. Do SMEs play a large role?	Yes	
4. Is the sector national/EU/global?	National/ EU	
5. Is the workforce old?	No	
6. Is the workforce low educated?	No	
<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1</sup></b>
A. Recruiting workers from other sectors	No.	-
B. Recruiting workers from other Member States	No.	-
C. Recruiting workers from Non-member States	No.	-
D. Recruiting unemployed with or without re-training	Yes. Active programmes, e.g. by Carrefour.	C, U, G
E. Recruiting young people from the education system	Yes, a viable option.	C, E
F. Training and re-training employed workers	Yes, viable and most important option.	C, S, E, U, I
G. Changing work organisation	Yes.	C, U
H. Outsourcing and offshoring	Yes, in particular in the growth scenarios. E.g. in payment and ICT-related functions.	C
I. Changing vocational education	Yes, more modular and (sub-) sector specific skills and flexible modularisation.	E, S, C, I, G
J. Designing and offering new courses	Yes, mainly for enhancing (sub-) sector specific and soft skills. Flexible forms of training are essential.	E, S, C, I
K. Providing information about emerging skills	Yes, in particular to inform about the volume changes on regional level.	E, S, C, I, U
L. Improving the image of the sector	Yes	E, S, C, I, U
M. Stronger cooperation between stakeholders	Yes, to design new suitable courses and inform about emergent skills.	E, S, C, I, U

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments and regulators), I (intermediary organisation, public or private), U (trade unions).

## 14.11 Service workers

Service workers represent by far the most numerous group among the different occupational functions in the sector. Not only because of this fact, but also due to different sub sectors and business strategies, the strategic choices to address the emergent skills could be quite different. Table 14.8 presents a picture of these different possibilities. The numbers of service workers is expected to increase in the Shopping Malls Rule and My Specialty Store scenarios and tends to decrease in the V-stores scenario and will probably stabilise in the Shop Around the Clock scenarios. Therefore, not only skill gaps, but also skill shortages are likely to occur.

Generally speaking, recruiting workers from other sectors is a viable and possible option in all scenarios. This holds particularly true for the recruitment from the respective production sector as this could provide a possibility to meet the high customer demand forecasted in the My Speciality store and the Shop Around the Clock scenario. Recruiting service workers from other Member States or Non-member States could be seen as viable option in the V-store scenario where customer demands will be satisfied online via web based applications. In the other scenarios service staff can be hired from other countries and even Non-member States provided that they also have the necessary language skills. The employment of ethnically mixed staff could in some cases also provide an important service advantage in order to better address customer.

Recruiting unemployed is a viable option to address the increasing demand for service workers in some scenarios. This does not only hold true for lower skilled repetitive work as, for example, in the food retail sector, but also for selling goods, which require a substantial amount of explanatory support and service. Recruiting young professionals from the employment system is another viable option. They will in particular be able to provide the skills for the emergent e-skill demand in the sector. However, ageing consumers should be taken into account when recruiting new personnel. It is important to note that the total workforce of service workers is remarkably young and that age, gender and also ethnic diversity should be stronger taken into account by HR managers. This could especially be a viable option in the My Speciality Store scenario yet it could also provide an option for the Shopping Malls Rule scenario forecasting growing numbers of staff.

Training of the existing staff will be a viable and important option in all scenarios. It will be of lesser importance for large take away stores in the scenarios with fast technological change, causing an overall reduction in the numbers of qualified workers. In these cases the application of electronic devices and a further and ongoing improvement of social skills are mainly required. In other sub sectors, particularly small retail shops and in some departments of larger warehouses training of staff in the emergent competences will be important in all scenarios, however most important it will be in the My Speciality Store scenario. This does not only refer to social skills but also to problem solving skills and self-management skills. Changing work organisation is another viable option to react on the changing business environment. Technological change will make leaner structures possible and will make job enlargement but also team work an important option. This applies mainly to the Shop Around the Clock and V-stores scenarios. Outsourcing and offshoring of service workers will only be a viable option in the V-store scenario, where virtual service workers can provide information for consumers anywhere in the world.

Especially in the Shop Around the Clock and V-stores scenarios a change of initial vocational training is an important option to properly react to the changes of the business environment. More flexible and modularised training as well as the use of more e-learning instruments and tools is necessary. This also applies to the design of new courses. In this strategic option particularly the training institutes should react on the training demand of migrant businesses and of SMEs (see also implications).

Providing information about emerging skill needs is essential to be able to offer optimal placement possibilities. For this occupational function the different developments in the sub sectors (e.g. food retail on the one hand and luxury goods on the other) should be strongly taken into account. This is particularly needed in those scenarios with strong internationalisation and fast technological changes, yet it could also be applied to the other scenarios. Hence, for the designing of new courses and the provision of information about emerging skill needs, a stronger co-operation of the relevant stakeholders is required.

An improvement of the image of the sector can be seen necessary in some cases. Labour turnover is in general high and in some branches and countries comparatively low wages lead to an attraction primarily of low qualified personal, though this does usually not create employment bottlenecks.

**Table 14.8 Strategic options service workers**

1. What is the maximum volume effect?	Stabilisation in EU-15, NMS increase	
2. What is the maximum change in skills?	14	
3. Do SMEs play a large role?	Yes, esp. in NMS	
4. Is the sector national/EU/global?	National, EU	
5. Is the workforce old?	No, yet in EU15 somewhat older than in NMS	
6. Is the workforce low educated?	No	
<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1</sup></b>
A. Recruiting workers from other sectors	Yes a viable option in scenario with increasing volume.	C
B. Recruiting workers from other Member States	Yes a viable option in scenario with increasing volume.	C, G
C. Recruiting workers from Non-Member States	Yes a viable option in scenario with increasing volume.	C, G
D. Recruiting unemployed with or without re-training	Yes a viable option in scenario with increasing volume.	C, G, E
E. Recruiting young people from the education system	Yes a viable option, but diversity aspects should be strongly taken into account.	C, S
F. Training and re-training employed workers	Yes, for counselling intense retail shops and smaller businesses.	C, E, U, S, I
G. Changing work organisation	Yes, teamwork and job enlargement in the growth scenarios.	C, U
H. Outsourcing and offshoring	Yes, e.g. call centres.	C, U
I. Changing vocational education	Yes, more modular and (sub-) sector specific skills and flexible modularisation.	E, S, C, I, G
J. Designing and offering new courses	Yes, mainly for enhancing (sub-) sector specific and soft skills. Flexible forms of training are essential.	E, S, C, I
K. Providing information about emerging skills	Yes.	E, S, C, I, U
L. Improve the image of the sector	Yes.	E, S, C, I, U
M. Stronger cooperation between stakeholders	Yes at least in order to design new trainings and provide information about changing skill needs	E, S, C, I, U, G

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments and regulators), I (intermediary organisation, public or private), U (trade unions)



## 14.12 Craft workers

The category craft workers is comprised of mechanics, fitters, servicers of household goods, craft and trade workers, e.g. personal active in food processing such as butchers, bakers or tailors and shoe repairers. It also contains motor vehicle repairers. Table 14.9 presents the main strategic choices for this occupational group, while in the text the other occupations are only touched. The number of employees of this occupational function is expected to increase only in the My Speciality Store scenario. In the V-store scenario their number is expected to shrink, while in Shop Around the Clock and Shopping Malls Rule their number is expected to stay stable. Hence, mainly skill gaps have to be addressed by the strategic choices and only in one scenario skill shortages can be expected.

Recruiting workers from other sectors is less likely and possible for this occupational function because of the specific qualifications and skills needed to fulfil the respective tasks. More promising will be to recruit workers from other member states and non-member states, which will be an option especially in the My Specialty Store scenario where an increase in their numbers is expected. In the other scenarios this is not a viable option also because this occupational function has to some extent customer contact and requires appropriate language skills. In some cases it could none the less be positive to have an ethnically mixed workforce to address different customer groups. The scope of these two strategic options is also limited by the acceptance and verification of qualifications by the public authorities. More viable is to recruit unemployed or fresh trained young people from the education system to meet natural replacement demand. And it will be important to continuously train the existing workforce and to help them adapt to technological changes in the subsector. In particular in the scenarios with fast technological progress, the integration of electronic devices in cars and household products will proceed and the application of diagnostic tools and knowledge about electronics and software will become as important as the knowledge about mechanics. This development will also make changes in work organisation more necessary, and particularly in motor repair the knowledge about electronics and mechanics will have to be combined through stronger teamwork in the future. For non company-authorised automotive repair businesses this could become one possibility to gain knowledge about several different type of motor systems and the related electronic diagnostics. Changing vocational training is a viable option to meet the emergent skill demands in repair subsectors where technological development is fast. This of course applies more to the Shop Around the Clock scenarios where changes in vocational education are also supported by fierce competition which makes a more flexible and modular initial education and training necessary to keep absence from work low and individual adaptability to new technological needs high. Design and offer of new courses is also a positive option to address skill demands. Especially flexible training for SMEs and new forms of blended and web based learning should be developed.

Providing information about emerging skill needs is essential to offer optimal placement possibilities. For this occupational function the different developments in the sub sectors should be given special attention. This is particularly necessary in those scenarios with fast technological changes, yet it could also be applied to the other scenarios. For designing new courses and the provision of information about emerging skill needs, a

stronger co-operation of the relevant stakeholders is required. An improvement of the image of the sector is not necessary.

**Table 14.9 Strategic options craft and related trades workers**

1. What is the maximum volume effect?	Increase	
2. What is the maximum change in skills?	13	
3. Do SMEs play a large role?	Yes	
4. Is the sector national/EU/global?	National/ EU	
5. Is the workforce old?	No	
6. Is the workforce low educated?	No	
<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1</sup></b>
A. Recruiting workers from other sectors	No	
B. Recruiting workers from other Member States	Yes in My Speciality Store but limited in scope	C
C. Recruiting workers from Non-Member States	Yes in My Speciality Store but limited in scope	C, G
D. Recruiting unemployed with or without re-training	Yes, an update of skills might be necessary	C, E, I
E. Recruiting young people from the education system	Yes to gain new skills.	C
F. Training and re-training employed workers	Yes regularly update of technical skills and knowledge to new developments and shorter product cycles. But also customer care and management skills	C, E, U
G. Changing work organisation	Yes, teamwork will become more important in the growth scenario	C, U
H. Outsourcing and offshoring	Yes in the growth scenarios, mainly for non authorised car repair	C
I. Changing vocational education	Yes, stronger modularisation and flexibility and a stronger accentuation of electronics compared to mechanics	E, S, C, I, G
J. Designing and offering new courses	Yes, more flexible courses for employees in SMEs, development of blended learning	E, C, S, I
K. Providing information about emerging skills	Yes,	E, S, C, I, U
L. Improve the image of the sector	No	-
M. Stronger cooperation between stakeholders	Yes	E, S, C, I, U, G

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments and regulators), I (intermediary organisation, public or private), U (trade unions).

### 14.13 Motor vehicle drivers

In Table 14.10 strategic choices for motor vehicle drivers are laid out. As labour and skill shortages in the case of Large Goods Vehicle (LGV) drivers and severe problems to meet the actual demand are already occurring, all strategic options have to be taken into account. This will be all the more important in the Shop Around the Clock and V-stores scenarios, where demand for this occupational function is expected to rise. In the other two scenarios the numbers are expected to stay stable. The necessity to choose between these strategic options will vary between companies and Member States, depending on their demand.

Recruiting workers from other sectors such as the transport sector, the postal sector or the manufacturing sector will constitute a strategic option, provided that the workers possess the respective driving licence and the retail or wholesale company is able to meet their wage claims. Recruiting workers from other Member states and Non-member States is already being undertaken in some European countries in order to address skill shortages (SfL 2006b: 24). In these cases usually basic training is conducted. Recruiting unemployed is only easily manageable if the potential workers possess the required driving licence. In regions with high demand for road drivers, public employment service together with the companies should provide financial assistance for the respective training. Recruiting young people from the education system is another viable option to address the skill shortages in this occupational function of the sector. However, this measure will only be successful if the image of the occupational function is improved. The occupational group of motor vehicle drivers is by no means perceived as prestigious although the working conditions of road drivers in the wholesale and retail sector, as for example their working hours and shifts, their stress, wages and career prospects, are better than in the transport sector. Nonetheless, changes in work organisation, particularly in working conditions, would be a viable strategic option to attract more drivers to the sector and to enhance the possibilities for staff training. More flexible working hours and part time work could also help to diversify the workforce. Outsourcing and offshoring are already in place to reduce costs and to meet peaks in distribution requirements.

If internationalisation and mobility is growing further, the development of a European road driver apprenticeship model is conceivable in order to address future skill gaps. In general, little resources are attributed to training in the sector. Hence, up-skilling of the workforce will only be possible if there is a strong obligation to training as to avoid a distortion of competition in Europe because of unequal costs. Thus, an expansion and deepening of the Certificate of Professional Competence (CPC) seems necessary. Designing and offering new courses in order to address emerging skill shortages is a viable and necessary option. The most important content of training is eco-efficient clean driving and the adaptation of vehicle knowledge. Even more important will be to provide flexible new training methods to keep absence of employees from work low and training cheap and flexible. Moreover, it will become important to adapt the skills of drivers regularly to new technologies and to changes in regulation. A solid co-operation of all relevant stakeholders to pursue different strategic choices more efficiently is necessary. Firstly, to develop and adapt training to the special needs of SMEs, and, secondly to attract more drivers to the sector.

**Table 14.10 Strategic options motor vehicle drivers**

1. What is the maximum volume effect?	Increase
2. What is the maximum change in skills?	7
3. Do SMEs play a large role?	No
4. Is the sector national/EU/global?	Mainly national/ EU
5. Is the workforce old?	No
6. Is the workforce low educated?	No

<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1,2</sup></b>
A. Recruiting workers from other sectors	Yes, to recruit drivers from other sectors is in general feasible.	C
B. Recruiting workers from other Member States	Yes, with respective training i.e. basic language skills	C, E
C. Recruiting workers from Non-Member States	Yes, with respective training i.e. basic language skills	C, E
D. Recruiting unemployed with or without re-training	Yes, if they have the necessary driving license. If regional demand is very high and foreseen PES can provide training.	C, E, I
E. Recruiting young people from the education system	Yes, viable and important option due to an ageing workforce, but only successful with point L	C,
F. Training and re-training employed workers	Yes in the emergent skills	C, U
G. Changing work organisation	Yes, to diversify the workforce and attract more persons employee friendly work organisation would be helpful, but limited by fierce competition	C, I, U
H. Outsourcing and offshoring	Yes, already done but will become stronger if cabotage regulation in Europe is weaken	C
I. Changing vocational education	Yes, development of an European truck driving licence.	C, E, S, I, G
J. Designing and offering new courses	Yes, to develop flexible training.	C, E, S, I
K. Providing information about emerging skills	Yes	C, E, S, I, U
L. Improve the image of the sector	Yes, to diversify the workforce in the sector and address skill shortages	C, E, I, S
M. Stronger cooperation between stakeholders	Yes, to develop training forms suitable for employees in SMEs and to improve the image of the sector	C, E, I, S, G, U

Notes: C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments), I (intermediary organisation, public or private), U (trade unions)

#### **14.14 Machine operators**

The category machine operators includes medium educated workers operating machines in food processing, textile and leather production. Their numbers are expected to decrease in the Shopping Malls Rule and V-stores scenarios and to stay stable in the Shop Around the Clock as well as in the My Speciality Store scenario. Table 14.11 presents mainly strategic choices for this occupational group. Because of their expected stability in numbers only skill gaps and no shortages have to be addressed.

Recruiting workers from other sectors is a more viable option than in the case of craft workers due to the lower degree of specialised skills of machine operators. Because of this fact and their low tendency of customer traffic recruiting workers from other member states as well as from non-member states is a viable option but not necessarily in any scenario, because only skills gaps and no shortages have to be addressed. The same holds true for unemployed. Recruiting young persons from the education system is an option to address replacement demand and some of the latest skill gaps such e-skills, which can be expected more vivid in the younger age groups than in the older ones. In the scenarios with rapid technological change, training in applied electronic machinery and latest technology will be necessary. Also self management skills will be more emerging in the scenarios with strong competition than in the other scenarios. For machine operators with the necessary potential there would be the possibility to re-train or up skill them to craft workers. Changing work organisation will be a viable option to react to the technology induced changes in the work environment; teamwork and job enlargement are viable options. Outsourcing or offshoring is only a viable option if related craft work is outsourced too. Changing of vocational training is not necessary but the design of new flexible training courses and web based materials would be a viable option to meet the skill need of this occupational function in the future.

Providing information about emerging skill needs is essential for offering optimal placement possibilities. For this occupational function especially the different developments in the sub sectors should be considered strongly. This will be particularly needed in those scenarios with fast technological change, yet it could also be applied in the other scenarios. Hence, for the designing of new courses and the provision of information about emerging skill needs, stronger co-operation of the relevant stakeholders is required. An improvement of the image of the sector is not necessary.

**Table 14.11 Strategic options machine operators**

1. What is the maximum volume effect?	Decrease	
2. What is the maximum change in skills?	7	
3. Do SMEs play a large role?	Yes	
4. Is the sector national/EU/global?	National/ EU	
5. Is the workforce old?	No	
6. Is the workforce low educated?	No	
<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1</sup></b>
A. Recruiting workers from other sectors	No	-
B. Recruiting workers from other Member States	No	-
C. Recruiting workers from Non-Member States	No	-
D. Recruiting unemployed with or without re-training	No	-
E. Recruiting young people from the education system	Yes to meet the natural replacement demand	C
F. Training and re-training employed workers	Yes in the emerging skills, re-training for more promising occupations is also an option	C, E, I, U, S
G. Changing work organisation	Yes	C, U
H. Outsourcing and offshoring	Yes, mainly in wholesale	C
I. Changing vocational education	No	
J. Designing and offering new courses	Yes, more flexible courses for employees in SMEs, development of blended learning	E, C, S, I
K. Providing information about emerging skills	Yes	C,S, E, I, U
L. Improve the image of the sector	No	
M. Stronger cooperation between stakeholders	Yes	C,S, E, G, I, U

Notes: C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments and regulators), I (intermediary organisation, public or private), U (trade unions).

### 14.15 Logistics workers

In Table 14.12 strategic choices for logistics workers are described. Logistics workers are carrying out lower services in all subsectors. In general, no apprenticeships are necessary for the lower end of warehousemen and logistics workers. The numbers of logistics workers are expected to decrease in the Shop Around the Clock and V-stores scenarios and to stay stable in the Shopping Malls Rule and My Specialty Store scenarios.

The most important driver of skill changes of logistics workers is the ongoing automation of the supply chains and logistics. Therefore, e-skills and technical knowledge become more important. There are two possible pathways for this occupational function according to the Shop Around the Clock and V-stores scenarios. On the one hand some tasks of logistics workers are shifted towards technically based freight controllers whose technical function will become to mainly control automated freight processes (Schmalzer et al. 2003a). This applies more to wholesale than to retail. On the other hand physical tasks will remain constant. Hence, different strategic choices are viable. Recruiting workers from other sectors, from other Member States and Non-member States are quite viable options because of the general low skill level of logistics workers and the common “training on the job” in this occupational function. Recruiting unemployed and young people from the education system are also possible strategic choices. Training of the existing workforce is a necessary and viable option to address the emerging e-skill demand and the rising technological knowledge required to fulfil the tasks of a freight handler in future. Changing work organisation, outsourcing and offshoring are less viable options for this occupational function. For the lower end of logistics workers there is no vocational education available in most countries. For warehouse clerks apprentices a change into available vocational education and training could become necessary, especially when e-tailing becomes common in the V-stores scenario. The design and offer of new training courses will become essential and will go hand in hand with the ongoing changes in the freight automation technology. Yet, also new flexible courses for training of soft skills (e.g. self management and communication) are viable options to meet the emerging skill demand.

Providing information about the emerging skills of logistics workers and the impact of technology on this occupational function is an important strategic option to prevent a skill mismatch. For this reason as well as in order to develop flexible forms of training, existing co-operations should be deepened in the sector.

**Table 14.12 Strategic options logistics workers**

7. What is the maximum volume effect?	Decrease
8. What is the maximum change in skills?	9
9. Do SMEs play a large role?	No
10. Is the sector national/EU/global?	National/ EU
11. Is the workforce old?	No
12. Is the workforce low educated?	Yes

<b>Option</b>	<b>Is this option viable?</b>	<b>Actors<sup>1,2</sup></b>
A. Recruiting workers from other sectors	Yes due to the low skill level.	C
B. Recruiting workers from other Member States	Yes, but limited due to language gap	C, E
C. Recruiting workers from Non-Member States	Yes, but limited due to language gap	C, E
D. Recruiting unemployed with or without re-training	Yes, but training could be necessary	C, E, I, G
E. Recruiting young people from the education system	Yes, to meet the natural placement demand.	C,
F. Training and re-training employed workers	Yes, in the main emergent skills in particular e-skills.	C, E, U, S, I
G. Changing work organisation	No	-
H. Outsourcing and offshoring	No	-
I. Changing vocational education	No, not in the next years necessary	-
J. Designing and offering new courses	Yes, develop flexible training for low skilled group of labourers.	C, E, S, I
K. Providing information about emerging skills	Yes, viable and important option to avoid mismatch	C, E, I
L. Improve the image of the sector	No	-
M. Stronger cooperation between stakeholders	Yes, in order develop new training forms and react quickly on new skill needs.	C, E, I, S, U, G

Notes: 1. C (company), S (sector organisations and chambers of commerce), E (education & training), G (governments), I (intermediary organisation, public or private), U (trade unions).



#### **14.16 Scenario implications, future skills and knowledge needs and possible solutions: summary and main conclusions**

Implications of the scenarios in terms of expected volume changes in employment (jobs), future skills and knowledge needs as well as ways to address and solve these needs (strategic choices) have all been analysed so far at the individual job function level. This section serves to summarise the main implications and solutions for each of the job functions presented in chapters 12, 13 and 14. It serves as a bridge to the next chapter where we shift from a micro perspective (job functions) to a meso (sector and policy) perspective.

**Table 14.13 Summary of job volumes, skills changes, strategic choices and main players in anticipatory action by scenario**

		<b>Shop around the Clock</b>	<b>Shopping Malls Rule</b>	<b>V-stores</b>	<b>My Specialty Store</b>
<b>Managers of SMEs</b>	1. Employment volume change	+	0/-	0	+
	2. Skills changes counted	21	11	17	21
	3. Emerging skills needs	Entrepreneurship (understanding suppliers & customers, international trade) Management skills (client relationship management), Self management, Social skills, Hard skills (especially e-skills)	Entrepreneurship, Management skills (client relationship management), Social skills, Hard skills (e-skills)	Entrepreneurship (International trade), Management skills (client relationship management), Social skills, Hard skills (especially e-skills)	Entrepreneurship (understanding suppliers & customers, trend setting / spotting), Management skills (client relationship management, quality management), Social skills (social perceptiveness), Problem solving skills, Self management, Hard skills
	4. Most important solutions	Training and retraining; Recruiting young people, unemployed, from other sectors; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Training and retraining; Recruiting young people; Changing vocational education; Providing information; Improving image; Stronger cooperation	Training and retraining; Recruiting young people, from other sectors; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Training and retraining; Recruiting young people, unemployed; Changing vocational education; Providing information; Improving image; Stronger cooperation
	5. Most important actors	C, E, G, I, S <b>Shop around the Clock</b>	C, E, G, I, S <b>Shopping Malls Rule</b>	C, E, G, I, S <b>V-stores</b>	C, E, G, I, S <b>My Specialty Store</b>
<b>Specialist managers</b>	1. Employment volume change	+	0	0/+	0
	2. Skills changes counted	20	11	16	22
	3. Emerging skills needs	Entrepreneurship (understanding suppliers & customers, International trade), Management skills (client relationship management), Social skills, Hard skills (e-skills), Problem solving skills (creativity)	Entrepreneurship, Management skills (client relationship management), Social skills, Hard skills (e-skills), Problem solving skills (creativity)	Entrepreneurship (International trade), Management skills (client relationship management), Social skills, Hard skills, Problem solving skills (creativity)	Entrepreneurship (understanding suppliers & customers, trend setting / spotting), Management skills (client relationship management, quality management), Problem solving skills, Social skills (social perceptiveness), Hard skills
	4. Most important solutions	Training and retraining; Recruiting from other sectors, young people; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Training and retraining; Recruiting young people; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Training and retraining; Recruiting young people; Changing vocational education; Changing work organisation; New courses; Providing information; Improving image; Stronger cooperation	Training and retraining; Recruiting young people; New courses; Providing information; Improving image; Stronger cooperation
	5. Most important actors	C, E, S, I, G	C, E, S, I, G	C, E, S, I, G	C, E, S, I, G

<b>Health professionals</b>	1. Employment volume change	<b>Shop around the Clock</b> 0	<b>Shopping Malls Rule</b> 0	<b>V-stores</b> 0/-	<b>My Specialty Store</b> 0/+
	2. Skills changes counted	9	4	8	7
	3. Emerging skills needs	Hard skills (Legislative knowledge, e-skills, technical knowledge), Management skills (quality management), Social skills	Hard skills (technical knowledge), Management skills (quality management)	Hard skills (Legislative knowledge, e-skills, technical knowledge), Management skills (quality management), Social skills	Hard skills (legislative knowledge, technical knowledge), Management skills (quality management), Entrepreneurship (understanding suppliers & customers), Social skills
	4. Most important solutions	Training and retraining; New courses; Providing information; Stronger cooperation	Training and retraining; Providing information; Stronger cooperation	Training and retraining; Outsourcing and offshoring; New courses; Providing information; Stronger cooperation	Recruiting from other Member States; Training and retraining; Providing information; Stronger cooperation
	5. Most important actors	C, E, S, I, G	C, E, S, I, G	C, E, S, I, G	C, E, S, I, G
<b>Accounting &amp; Finance</b>	1. Employment volume change	<b>Shop around the Clock</b> -	<b>Shopping Malls Rule</b> 0	<b>V-stores</b> -	<b>My Specialty Store</b> 0
	2. Skills changes counted	4	4	4	4
	3. Emerging skills needs	Hard skills (legislative knowledge, e-skills) Problem solving skills Self management	Hard skills (legislative knowledge) Problem solving skills Self management	Hard skills (legislative knowledge, e-skills) Problem solving skills Self management	Hard skills (legislative knowledge) Problem solving skills Self management
	4. Most important solutions	Training and retraining; Changing work organisation; Outsourcing and offshoring; New courses; Providing information; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; New courses; Providing information; Stronger cooperation	Training and retraining; Changing work organisation; Outsourcing and offshoring; New courses; Providing information; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; New courses; Providing information; Stronger cooperation
	5. Most important actors	C, E, S	C, E, I, S, G	C, E, S	C, E, S

## Sales &amp; marketing

	<b>Shop around the Clock</b>	<b>Shopping Malls Rule</b>	<b>V-stores</b>	<b>My Specialty Store</b>
1. Employment volume change	+	0/+	+	0/+
2. Skills changes counted	14	10	13	11
3. Emerging skills needs	Entrepreneurship (understanding suppliers & customers, marketing skills, trend setting / spotting, sales skills), Management skills (client relationship management), Social skills	Entrepreneurship (understanding suppliers & customers, marketing skills, trend setting / spotting, sales skills), Management skills (client relationship management)	Entrepreneurship (understanding suppliers & customers, marketing skills, trend setting / spotting, sales skills), Management skills (client relationship management), Social skills	Entrepreneurship (understanding suppliers & customers, marketing skills, trend setting / spotting, sales skills), Management skills (client relationship management), Social skills (social perceptiveness)
4. Most important solutions	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation
5. Most important actors	C, E, S, I, G	C, E, S, I, G	C, E, S, I, G	C, E, S, I, G
	<b>Shop around the Clock</b>	<b>Shopping Malls Rule</b>	<b>V-stores</b>	<b>My Specialty Store</b>
1. Employment volume change	+	0	-	0
2. Skills changes counted	9	8	8	6
3. Emerging skills needs	Hard skills (Supply chain management), Social Skills	Hard skills (Supply chain management), Social skills	Hard skills (Supply chain management), Social skills	Hard skills (Supply chain management), Social skills
4. Most important solutions	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Stronger cooperation	Recruiting; Training and retraining; Outsourcing; Changing vocational education; New courses; Providing information; Stronger cooperation	Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing; Changing vocational education; New courses; Providing information; Stronger cooperation
5. Most important actors	C, E, I, S, G	C, E, I, S, G	C, E, I, S, G	C, E, I, S, G

## Supply chain management

	<b>Shop around the Clock</b>	<b>Shopping Malls Rule</b>	<b>V-stores</b>	<b>My Specialty Store</b>	
<b>Administrative support staff</b>	1. Employment volume change	0/-	-	--	+
	2. Skills changes counted	11	8	10	10
	3. Emerging skills needs	Hard skills (e-skills), Self management, Social skills, Problem solving skills (creativity)	Hard skills, Self management, Social skills, Problem solving skills (creativity)	Hard skills (legislative knowledge, e-skills), Self management, Social skills, Problem solving skills (creativity)	Hard skills (legislative knowledge), Self management, Social skills, Problem solving skills (creativity)
	4. Most important solutions	Recruiting unemployed and young people; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses;; Providing information; Improving image; Stronger cooperation	Recruiting unemployed and young people; Training and retraining; Changing work organisation; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting unemployed and young people; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting unemployed and young people; Training and retraining; Changing work organisation; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation
	5. Most important actors	C, E, S, I, G, U	C, E, S, I, G, U	C, E, S, I, G, U	C, E, S, I, G, U
	<b>Shop around the Clock</b>	<b>Shopping Malls Rule</b>	<b>V-stores</b>	<b>My Specialty Store</b>	
<b>Service workers</b>	1. Employment volume change	0	+	-	+
	2. Skills changes counted	14	12	8	14
	3. Emerging skills needs	Entrepreneurship (understanding suppliers & customers, sales skills), Social skills, self management skills, Problem solving skills (Initiative), Hard skills	Entrepreneurship (understanding suppliers & customers, sales skills), Social skills, Problem solving skills (Initiative), Hard skills (product knowledge)	Entrepreneurship (understanding suppliers & customers), Social skills, Hard skills	Entrepreneurship (understanding suppliers & customers, sales skills), Social skills (social perceptiveness), Problem solving skills (Initiative), Hard skills (product knowledge)
	4. Most important solutions	Recruiting; Training and retraining; Changing work organisation; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting; Training and retraining; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting; Training and retraining; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation
	5. Most important actors	C, E, S, I, G, U	C, E, S, I, G, U	C, E, S, I, G, U	C, E, S, I, G, U

	<b>Shop around the Clock</b>	<b>Shopping Malls Rule</b>	<b>V-stores</b>	<b>My Specialty Store</b>	
<b>Craft workers</b>	1. Employment volume change	0/-	0/-	-	+
	2. Skills changes counted	13	5	11	10
	3. Emerging skills needs	Hard skills (technical and product knowledge), Problem solving skills (Initiative, creativity), Self management, Management skills (quality management)	Hard skills (technical and product knowledge), Problem solving skills (Initiative, creativity), Management skills (quality management)	Hard skills (technical and product knowledge), Problem solving skills (initiative, creativity), Self management, Management skills (quality management)	Hard skills (technical and product knowledge), Problem solving skills (initiative, creativity), Self management, Management skills (quality management)
	4. Most important solutions	Recruiting unemployed and young people; Training and retraining; Changing work organisation; Changing vocational education; New courses; Providing information; Stronger cooperation	Recruiting unemployed and young people; Training and retraining; Changing work organisation; Changing vocational education; New courses; Providing information; Stronger cooperation	Recruiting unemployed and young people; Training and retraining; Changing work organisation; Changing vocational education; New courses; Providing information; Stronger cooperation	Recruiting unemployed and young people; Training and retraining; Changing work organisation; Changing vocational education; New courses; Providing information; Stronger cooperation
	5. Most important actors	C, E, I, S, U, G	C, E, I, S, U, G	C, E, I, S, U, G	C, E, I, S, U, G
<b>Motor vehicle drivers</b>		<b>Shop around the Clock</b>	<b>Shopping Malls Rule</b>	<b>V-stores</b>	<b>My Specialty Store</b>
	1. Employment volume change	0/+	0	0/+	0
	2. Skills changes counted	7	6	7	6
	3. Emerging skills needs	Hard skills (e-skills, technical knowledge) Self management (stress & time management, flexibility), Social skills	Hard skills (technical knowledge), Self management (stress & time management, flexibility)	Hard skills (e-skills, technical knowledge) Self management (stress & time management, flexibility), Social skills	Hard skills (technical knowledge), Self management (stress & time management, flexibility)
	4. Most important solutions	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation	Recruiting; Training and retraining; Changing work organisation; Outsourcing and offshoring; Changing vocational education; New courses; Providing information; Improving image; Stronger cooperation
5. Most important actors	C, E, I, S, U, G	C, E, I, S, U, G	C, E, I, S, U, G	C, E, I, S, U, G	

	<b>Shop around the Clock</b>	<b>Shopping Malls Rule</b>	<b>V-stores</b>	<b>My Specialty Store</b>	
<b>Machine operators</b>	1. Employment volume change	0	-	-	0
	2. Skills changes counted	7	6	7	7
	3. Emerging skills needs	Hard skills (technical knowledge), Self management (stress & time management, flexibility), Social skills	Hard skills (technical knowledge), Self management (stress & time management, flexibility), Social skills	Hard skills (technical knowledge), Self management (stress & time management, flexibility), Social skills	Hard skills (technical knowledge), Self management (stress & time management, flexibility), Social skills
	4. Most important solutions	Recruiting young; Training and retraining; Changing work organisation; New courses; Providing information; Stronger cooperation	Recruiting young; Training and retraining; Changing work organisation; New courses; Providing information; Stronger cooperation	Recruiting young; Training and retraining; Changing work organisation; New courses; Providing information; Stronger cooperation	Recruiting young; Training and retraining; Changing work organisation; New courses; Providing information; Stronger cooperation
	5. Most important actors	C, E, I, U, S, G	C, E, I, U, S, G	C, E, I, U, S, G	C, E, I, U, S, G
	<b>Shop around the Clock</b>	<b>Shopping Malls Rule</b>	<b>V-stores</b>	<b>My Specialty Store</b>	
<b>Logistics workers</b>	1. Employment volume change	-	0	-	0
	2. Skills changes counted	9	6	9	6
	3. Emerging skills needs	Self management (stress & time management, flexibility), Social skills, Hard skills, Management skills	Self management (stress & time management, flexibility), Management skills	Self management (stress & time management, flexibility), Social skills, Hard skills, Management skills	Self management (stress & time management, flexibility), Management skills
	4. Most important solutions	Recruiting; Training and retraining; New courses; Providing information; Stronger cooperation	Recruiting; Training and retraining; New courses; Providing information; Stronger cooperation	Recruiting; Training and retraining; New courses; Providing information; Stronger cooperation	Recruiting; Training and retraining; New courses; Providing information; Stronger cooperation
	5. Most important actors	C, E, I, S, U, G	C, E, I, S, U, G	C, E, I, S, U, G	C, E, I, S, U, G

C Companies; S=Sectoral organisations, U=trade Unions; E=Education and training institutes; G=Government (EU, Member State, regional, local); I = Intermediary organisations =

## **15 Conclusions and recommendations for education and training**

### **15.1 Introduction**

This chapter presents the main conclusions and recommendations for education and training; chapter 16 presents the main other conclusions and recommendations. Whereas the earlier chapters very much take a micro perspective by focusing on job functions in terms of expected volume changes, skills and knowledge needs and ways to address and solve these needs (strategic choices), chapter 15 takes a *meso* or *sector* perspective. It addresses a number of issues, part of which coming already to the fore in earlier chapters, and part being ‘new’ issues although much related to those already raised. The conclusions and recommendations are mostly based on the results of the preceding chapters; they were discussed during the final workshop with social partners, the industry and other experts.

The recommendations contained in this chapter should not be seen as fully exhaustive. They rather form the basis for further discussion and elaboration at various decision-making levels, ranging from the European Union and the Member State to the regional and local level. Industry itself – firms – have an important role to play, as do education and training institutes, social partners and the government (EU, national, regional and local). In most cases action should be taken jointly, by involving various actors, sometimes even at different levels. Collaboration and co-operation as buzzwords in today’s economy are easily coined. Making collaboration work in practice is, however, a challenge which requires mutual understanding, compromise and perseverance.

### **15.2 Conclusions and recommendations for education and training**

There are six main challenges that will affect the future of education and training in the distribution and trade sector. The stronger future economic growth – viz. the scenarios V-stores and Shop Around the Clock - , the stronger these challenges will become.

- 1) Ongoing technological change will lead to profound changes in business strategies and occupational functions in quality and quantity which are not stabilised yet (Part I, ILO 2006: 27, IFF 2008: 65 ongoing);
- 2) Tough national and European competition will lead to low profit margins and little resources for training of employed staff, which will strongly affect SMEs in the retail sector. In view of the importance of training, it is necessary to prepare the education and training system for this trend;
- 3) Globalisation supported by technological developments will lead to worldwide sourcing of products and an internationalisation of business models, which will have an impact on higher skilled experts at the larger international operating companies as well as the need for a joint recognition of qualifications;
- 4) Changes in consumer behaviour and mass customisation will lead to new niches in the sector and the emergence of new business models and, hence, stronger specialisation and differentiation of skills;
- 5) A strong gender-segmented workforce, with a predominantly young and female workforce, particularly in part-time service occupations, earning substantially less than the predominantly medium aged male dominated workforce in technical than the predominantly medium aged male dominated workforce in technical occupations.



- 6) A domination of SMEs in the sector, which will have limited possibilities to address the emerging skills need on their own. It will also affect continuing vocational training and asks for new innovative solutions.

During the past 15 years technological change has led to a profound change of some branches in the retailing market. E-commerce has expanded in different fields and physical shopping is reduced in several product categories. The recent developments in e-commerce could lead to a disintermediation of the value chain and in some cases, such as shoes, clothing, book publishing or music, sales and distribution is increasingly done directly by the producer via online shops or new forms of intermediaries. The end user buys digital products and orders products directly from the producer without any retail or wholesale intermediary. Another technological development is the RFID chip (see Part I), which enables the digital reading of products at several stages of retail processes and enhances the efficiency of the retail distribution supply chain. The increased automation of logistic data gathering will be fully implemented. This will lead to a reduction of medium qualified jobs mainly in administration, freight handling and less counselling intense branches. Moreover, this might give rise to an even stronger “de-qualification” of jobs than today, because digital devices take over control and tell the service worker what to do. On the other side, this can also be the chance for qualification and up-skilling of the remaining service workers and logistics workers and their assignment to other higher qualified jobs. This development is expected to occur in the V-stores scenario and also in the Shop Around the Clock scenario.

In the Shop Around the Clock and V-stores scenarios the tough global competition will support the reduction of labour costs and the introduction of more technology, which means for SME retail to have to find its niche to survive. This can lead to more specific retail branches which try to keep their market through high quality services and special offers in niche markets. The result will be a need for higher qualified staff, not only in the service area but also for some back office tasks and marketing departments to better address the customer needs.

In addressing these challenges, a number of actions should be taken, some of which apply to primary pre-vocational education, initial vocational training and higher education.

### **1) Adapt and modernise vocational education and training (VET) and general education systems, but do this nationally rather than at the EU level**

Both vocational education and training (VET) systems and the general education systems (primary, secondary and tertiary education) differ considerably between Member States, in terms of general set-up, organisation and implementation (see Box 6). While a discussion about which are the most adequate models and/or best practices is useful, the current variety in VET and general education systems in Europe makes it very difficult to come up with specific conclusions or recommendations about education needs and requirements for the distribution and trade sector from an EU-wide perspective. Most conclusions and recommendations should be based on the particularities of the existing education systems in the Member States, or even regions. This obviously is beyond the scope of this study. Some general observations can, however, be made. As a general trend most Member States at all levels of education tend to focus more than in the past on ‘teaching’ soft skills, by integrating soft-skills related lessons in existing curricula. One also observes a counter development in that in some Member States there is again a call for conventional knowledge and the teaching of ‘harder’ skills, as the attention for soft skills would go at their expense. This holds both for secondary education (relating to essential knowledge of foreign languages, mathematics, physics and chemistry) as well as university education (too broad curricula).

The expected technological change in the Shop Around the Clock and My Specialty Store scenarios will lead to profound changes in both business strategies and the employment situation. However, the precise extent of the impact of these changes is hard to predict. The education and training system has to cope and adapt to this uncertainty rather by a transition to flexible training (e.g. modularisation) than by offering new content. However, training institutions are unable to face this challenge on their own. To keep up pace with sector developments they need to provide the latest technology (for the technical occupations in the sector), the latest knowledge about emerging business possibilities and training for the skills of tomorrow. This challenge can not be met by one actor alone. The half-life period of skills and knowledge is also getting shorter due to changes in customer demands and resulting changes in business models. This leads to several implications for education and training systems on the level of both, the nature and the contents of the trainings provided.

#### **Box 6. Vocational education and training– rich variety between Member States**

A number of different systems in Vocational Education and Training (VET) as well as Initial and Continuing Vocational Education and Training (IVET and CVET) can be observed throughout the European Union. Various characteristics of these systems have to be taken into consideration when discussing possible specific implications for education and training. Existing VET-systems can be grouped into three main categories ('ideal types'), (i) liberal, (ii) state-controlled and (iii) corporatist VET-systems, each having a different underlying rationale and distinguishing characteristics. Key in this distinction are those who decide about the structure and content of VET: business itself, the state or the state together with social partners (see Table below). The three VET-systems of Germany, France and the United Kingdom are of special importance as they can be taken as representative for each of the three 'ideal type' categorisations. They are evidence of the rich variations in existing VET systems and their implementation in Europe. The enterprise-based training system of Germany (the 'Dual System') is implemented by the social partners and the state. Next to this prevailing system other forms of VET exist. In France, a school-based training system is established and implemented by the state. Even though the full-time school-based training system competes to some extent with an upcoming apprenticeship training system, it is still the dominant form of vocational training in France. The system implemented in the UK, the national vocational qualification, is regulated and driven by market forces in several important segments. Although national vocational qualifications (NVQ) and general national vocational qualifications (GNVQ) are regulated at national level, the implementation of training is not yet regulated at national level. Commercial certification systems are still competing with national ones. Work-based, as well as full-time school-based training can be found. Special training schemes for unemployed, such as school-based schemes for unemployed youths or work social enterprises for long-term unemployed, are present in several European Member States. Besides these 'ideal types' several mixed forms in Europe exist. In Spain, for example, one finds more informal forms of VET and in Central and East European countries the trend can be detected, that VET moves from a state centred model to a stronger corporatist model, while also business driven approaches exist in some sectors.

Especially in retail the most numerous occupational functions (service workers and administrative support staff) have medium qualification levels and the trend to medium qualifications is growing. The majority of occupational functions are either trained at schools, in apprenticeships or on the job. Therefore, the initial vocational training system is important for most of the job functions e.g. for technical occupations, service workers, administrative support staff, and supply chain managers. Before outlining several possibilities for improving Initial Vocational Training (IVET), different systems will be described.

**Table to Box 6. Three ‘ideal-type’ VET-models (elaborated from Clematide, 2005)**

	<b>A. Liberal</b>	<b>B. State-controlled</b>	<b>C. Corporatist</b>
<b>Decision maker</b>	Business (and individuals)	State	State and social partner organisations
<b>Rationale</b>	Liberalistic competitive	Centralistic state-centred	Corporative – social consensus
<b>Programmes</b>	Business and individual	Education and citizen	Occupation
<b>Content</b>	Needs of business and individual, utility oriented, short term and specific	Politically determined, general knowledge, course-oriented, academic	Determined by social partners, occupation centred, traditions
<b>Labour markets VET relates to</b>	Internal (business) labour markets	Occupational and internal labour markets	Occupational labour markets
<b>Strengths</b>	Flexible, cheap for the state, close to the needs of production	Strong linkage to the education system, no lack of training places	Broad vocational educations with status equal to general education
<b>Weaknesses</b>	Under-investment in training and education	Weak linkage to the labour market	Inertia in the institutions
<b>Representatives</b>	United Kingdom, Ireland	France	Germany, Austria, Denmark
<b>Trends</b>	Stronger state involvement in certification and quality	“Dual system” emerging and stronger orientation on business needs	Internal labour markets Marketing of VET

The different VET systems in Europe all have their own merits. It would make no sense to try to standardise VET throughout Europe. Especially in the new Member States, more focus and assistance is required to further fine-tune the existing VET systems to new and emerging needs (see further below).

Social mobility in many European countries is low. The VET system plays a key role for people to move up the social ladder. It is especially important to exploit the potential of ‘late developers’ that in the first instance did not reach tertiary education. VET systems should be enhanced to facilitate the option for people to continuously up-skill – also in light of life-long learning (LLL).

The remainder of this section includes a discussion of the most important measures to adapt and modernise existing systems at the Member State level.

## **2) Collaborate with all relevant stakeholders and intensify co-operation in education and training**

A key finding is that challenges for education and training in the sector can not be solved by education and training institutions alone. A variable set of stakeholders are required to work together in order to provide joint answers and solutions to the range of challenges identified. Close collaboration between all relevant stakeholders, including companies, education and training institutes, social partners, research institutes and public authorities, is needed to adapt to new realities and collaboration is an effective instrument to stimulate that changes are taken up and implemented.

Close collaboration between all relevant stakeholders, companies, education and training organisations, social partners, research institutions and public authorities will help to reduce

information deficits on current and emergent skills needs. The traditional training system has to adapt to the new situation and collaboration is an effective instrument to stimulate the implementation of changes in VET. Information gaps between present and future education and training needs and their supply are still evident. Consequently, a mismatch between actual VET supply and demand in quality as well as - to a lower extent - in quantity is observed for some occupational functions. Commercial training providers are often not meeting real training needs and do not respond to them in a sufficient way. In Germany and the United Kingdom this mismatch was recognised by the sector stakeholders and several reforms have been undertaken. Information systems on the sectoral- as well as on the regional, national and European level, assist in minimising information asymmetries in order to overcome skill gaps resulting from information deficits. Supporting students entering the labour market in finding a suitable occupation is as important as assisting employees to find new job opportunities based on their existing skills or guiding them to find the fitting vocational training course.

A strong linkage between industry and education and training is recommended in state-driven full-time school-based VET-Systems (Koch and Reuling, 1998). In all countries and, in particular, in the new Member States, co-operation is essential to improve the practical orientation in VET (Skjølstrup and Mayen, 2007). The ‘Sector skills councils’<sup>35</sup> in the United Kingdom (in particular Skillsmart Retail) and the ‘FreQueNz’ research network<sup>36</sup> are best practice examples on how to organise VET differently. The ‘Sector skill councils’ in the UK are funded by the Department for Innovation, Universities and Skills and are part of the government’s skills strategy for the 21<sup>st</sup> century. The councils ensure that individuals gain the skills they need so that persons with fitting skills are available. Sector skills strategies are defined for each sector based on the analysis of present and future skills needs, and further translated into sector skills agreements. FreQueNz is a research network located in Germany and funded by public means. The network comprises scientific institutes, education and training organisations, social partner organisations, companies and public authorities and contributes to early identification of qualification needs. This network has conducted a number of evaluative research projects on human and ICT resources, staff qualifications, tests, career guidance for adults, computerised career guidance programmes, and beneficiaries of guidance services.

Large retailers operating within the European Union have their own training programmes to support their high potential, high educated staff to adapt to business developments and technological change. They co-operate with universities, training academies, career development programmes, etc. An example of this collaboration is the Retail Academy, which is a retail training organisation set up by both retail business and education and training organisations. Retail Academy started in 2003 and grew out of the Retail Enterprise Network, supported by the European Social Fund. Also in most university degrees in management specialisation in retail and wholesale is possible. In some countries, e.g. Austria, new occupations such as e-commerce consultant and distribution manager in e-commerce have been developed and officially approved and further training offers for high skilled staff at universities in emergent skills besides e-commerce, such as supply chain management, is frequently available. The training needs necessary to adapt to the latest technology could become a bottleneck for the sector in the future and a stronger expansion of training towards the use of technology (e.g. RFID) in wholesale and retail could become necessary. Another

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<sup>35</sup> [www.sscalliance.org](http://www.sscalliance.org)

<sup>36</sup> [www.frequenz.net](http://www.frequenz.net)

point which has to be improved is the stronger acquisition of placements for bachelor students at SME retailers to give them the possibility to gain important (sub-) sector specific practice skills. A further challenge could be seen in a stronger accentuation of diversity sensitive recruiting strategies for human resource managers to break up the gender biased workforce in the sector and to better adapt to demographic changes. Some companies of the sector are already addressing this demand (EMCC 2007c: 10).

### **3) Preparing for re-training, up-skilling and multi-skilling**

According to the analyses of this study several occupational functions will face major volume changes (service workers, administrative support staff, and logistics workers) and changes in the quality of their skill composition in the Shop Around the Clock and V-stores scenarios and also in the My Speciality Store scenario. Technology will replace large proportions of labour in these occupational functions: an ILO (2006: 27) study estimates a reduction between 5 and 40% in distribution. For the remaining workforce skill changes will be necessary. This development will mainly and directly affect the major retail companies, but it will also have an effect on SMEs in the retail sector. While at major retailers more e-skills will be necessary, creativity and customer care skills are also of growing importance. Planning will be taken over by technology and service workers and logistics workers either have to control deliveries (if up-skilled) or carry out tasks the technology has ordered. The expected job losses make re-training and up-skilling for the lower end of workers in retail necessary to keep up their employability.

The same holds true for sales personnel in SMEs. These enterprises will only survive if they can perfectly address customer demands and this will only be possible if the quality of services provided by the business is high. Customer relationship management, communication, convincing skills, creativity and analytical skills to address customer's wishes will become more important (see also Schnalzer et al. 2000b), because price competition with the large players in their branches will be out of question. Re-training for more promising occupational functions will be easier at larger retailers, which are able to offer internal career paths. However, compared to other sectors (such as the telecommunication, energy or postal sector) the support for training of the lower occupations by the employers in general is low. Results from an English skills study in retail can be seen as representative for the whole sector (skillsmart retail 2007a: 17). The challenge ahead is to support SMEs and employees in their efforts to up-skill and even retrain their workforce at a much higher intensity than in the past (ILO 2006b: 27). This can be supported by tools for self directed learning (see 8.2.5), but also by stronger financial incentives by national authorities. Additionally, the awareness of SMEs as well as of personnel in endangered occupations for continuing vocational training should be raised to strengthen self responsibility of these groups.

To enhance training of SMEs in the retail sector the image of training has to be improved for SMEs as well as for micro enterprises of the sector and their awareness of the value of continuous vocational training for business development has to be strengthened. Still, training is only given piecemeal, that is to say, on-the-job and mainly for the purpose of adapting workers to new equipment or new products (skillsmart retail 2007a; to some extent EMCC 2007b). Regionally based campaigns can help to raise the participation of employees in continuing vocational training. It is conceivable to support the training efforts of the groups most affected by change by financial incentives. Additionally, campaigns should focus on raising the awareness of individual employees that they are also responsible for their own employability and will benefit from joining continuing vocational training initiatives.

Multi-skilling will also become more important for higher occupations in the retail sector. Owing to technological change not only excellent hard skills but also knowledge about the development of the value chain and intercultural and language skills will be emerging in nearly almost all higher occupations. For sales and marketing professionals additional excellent additional knowledge about the consumer and communication skills will be needed in order to survive in the strongly competitive market in the growth scenario and to address the specific customer demand in the My Speciality Store scenario.

#### **4) Enhance flexibility and modularisation**

Several implications arise due to the strengths and weaknesses of the different VET systems in place, the sector specific challenges on the one hand and the employer needs on the other. Firstly, an enhanced flexibility in education and training of technical occupations is needed. Flexibility in our sense refers to the capability of the VET System to adapt effectively to new training needs in terms of quality and quantity. A flexible VET-System is required in particular in circumstances in which profound changes take place and job functions and occupational profiles alter quickly. In order to achieve more flexibility and to respond in-time to altering training contents and enhanced quantity a modularisation of education and training is recommended. Even if problems occur in the modularisation of training in some IVET-Systems, modular systems facilitate the building up of competences and ease the interaction between IVET and CVET Systems. Flexibility is also required for different forms of education and training. In principle, blended learning combines face-to-face and group-based learning with up-to-date offline media and online e-learning forms, as for example digital learning modules on websites, video conferences, joint learning applications, newsgroups and blogs for interactive online learning. Thereby, costs of further training are reduced and flexibility to combine work with training is enhanced. Other positive effects on skills are the following: as large parts of this training are self-directed and informal the learner builds up several competences, like self reflection, self motivation, strength of purpose and an effective information processing.

Enhanced flexibility and a modularisation of IVET is a big challenge for the state controlled and the corporatist systems. Liberal systems will find their ways easier. However, the liberal market driven systems with their strong focus on technical on-the-job skills lag behind in general education, which in turn becomes an obstacle to the up-skilling of the individual and a higher permeability of the education system. Besides, general and generic skills are not obsolete but become more important as a basis for the ability to react on new training demands emerging from new technologies and changing production processes. More important and sometimes presenting a deadlock is the consequence for Life Long Learning of the individual following from different VET systems. The corporatist and school based VET System guarantees a more universal initial vocational training and in the case of combined apprenticeships also a practical training on the job (dual system). However, continuing training is disregarded. The qualification level once acquired leads to reposing on the achieved and Life Long Learning is not given a key focus. VET structures are not capable of adapting quickly to the new skill needs. Thus, a solid co-operation between VET suppliers and companies is required to better match skills needed by the industry and the supply throughout the working life cycle.

In the Shop Around the Clock, V-stores and My Speciality Store scenarios a broader set of skills in all occupational functions and the ability to choose between the right ones by the individual worker is expected. In the last years several reforms have taken place or have at

least been planned to adapt IVET to the technology and customer driven changes in the economy (e.g. the UK diploma initiative, or in Germany the reorganisation of the retail sales apprenticeships in 2004). For example, in Germany the two different apprenticeship trainings of retail sales personnel and retail merchant were changed. Due to technological development accountancy documentation is less important than steering, governing and controlling of business processes (bookkeeping knowledge is reduced in favour to cost and activity accounting), customer information and communication were strengthened. Most important is the stronger modularisation of apprenticeship, in order to adapt to the specialisation in different branches, and the greater permeability between retail sales (two year apprenticeship) and retail merchant apprenticeships (three year apprenticeship) (Paulini-Schlottau 2004). In the My Speciality Store new specialisations of apprenticeship models could become necessary, due to new customer demands. A German skill and competence forecast project (Abicht et al. 2003b: 73 ongoing) identified the need to extend the existing retail occupation profiles (e.g. retail sales bakery, meat etc.) to new emerging branches such as lifestyle products and ecological products.

The ongoing technological change in the automotive sector, for example, lead to apprenticeship reforms in several European states such as Germany<sup>37</sup>, Austria<sup>38</sup> and Switzerland<sup>39</sup>. The main purpose was to integrate the importance of electronic devices into the apprenticeships which lead to new profiles and a stronger emphasis on knowledge about electronics. Moreover, the stronger specialisation of the different motor vehicles (cars, motor bikes, commercial cars) has also been taken into account in Germany. In Switzerland a new entry level in car repair was introduced in 2007. The so called ‘automotive assistant’ can be seen as a possibility to open apprenticeships for young people to enter an occupation from which they have previously been excluded due to missing basic qualification for entering the standard apprenticeship. Moreover, joint training networks can help in keeping up a high standard of qualification or in improving the standard of qualification in technical occupations of the sector and in addressing the difficulties particularly of SMEs. In the long run, it is conceivable that in the motor vehicle repair sector software analysts will find a new job opportunity.

##### **5) Development of e-learning and blended learning, European wide recognition of skills**

A stronger use of e-learning also in apprenticeships could help to unburden SMEs. Moreover, E-learning is a quite useful tool to support the training supervisors of apprentices in companies and to provide latest information about developments in the sector. During the German reform of apprenticeships in the sector an e-learning cd-rom was developed for the apprenticeships to foster self directed learning.<sup>40</sup> The cd-rom comprises, amongst other things, tutorials, different learning situations and documents and is explicitly used as preparation for the final year of the apprenticeship of a sales merchant. Another example for self directed learning is the cd-rom which was developed in the framework of a Leonardo da Vinci project between several Member States and major retailers.<sup>41</sup> The training cd-rom imparts knowledge about sales and merchant functions in retail and also comprises tests for the learner. Before, the main objective of this cd-rom was to support apprentices in learning,

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<sup>37</sup> <http://www.bibb.de/de/5503.htm> from December 2008

<sup>38</sup> [http://auw.form.at/\\_doks/1101/2655.pdf](http://auw.form.at/_doks/1101/2655.pdf) from December 2008

<sup>39</sup> <http://www.bbaktuell.ch/pdf/bba3356.pdf>, <http://www.lehrstellenforum.ch/StiftiForum/berufe/autoberufe.pdf> from December 2008

<sup>40</sup> [http://www.bibb.de/redaktion/lernarrangements/info-cd/index48db.html?id=58#site\\_content](http://www.bibb.de/redaktion/lernarrangements/info-cd/index48db.html?id=58#site_content) demo-online version December 2008

<sup>41</sup> <http://www.bequawe.de/index.html> from December 2008

to help job starters or to support schools. In the continuation of this project the focus shifted towards an acknowledged certification in each of the European Member States, the so called European Commerce Competence. The European Commerce Competence aims developing and spreading of innovative qualification modules for retail, bridging various European education and training systems, designing practical training schemes and enhancing integration of stakeholders from new Member States and candidate countries. The training modules exist in German and English and will be translated into Polish, Turkish and Romanian. Another Leonardo da Vinci project tries to reach the same objective, but its focus is continuing vocational training in the retail sector.<sup>42</sup>

Essential to EU-wide recognition of qualifications and competences is the joint identification of occupation standards for retail at EU level; now there are huge differences between Member States. The internationalisation and globalisation of retail trade supports a stronger European wide recognition of skills and competences. This could support the mobility of labour through the European wide transparency and recognition of skills.

#### **6) Joint Training Networks to foster apprenticeships in the sector**

Especially the joint training networks between companies, which have been created for job entrants (and also for mature workers) due to technological change and the development of different business niches, will become more important in the future. Again, the example of the automotive sector may be useful. Only few companies will provide all services and have the ability to use the latest motor vehicle repair and diagnostic equipment. Hence, only few companies will provide all necessary technical equipment and resources for the best training for job entrants. This is a particular disadvantage of large numbers of SMEs, especially in the retail sector. Regional based joint training networks between companies are one possibility to provide the comprehensive training job entrants need. The main purpose of joint training systems is that apprentices pass through all necessary stages of an apprenticeship, although the main training company can only provide some of these stages. This does not only apply to the motor vehicle repair sector but could also be a possibility for SMEs in retail. Another useful instrument could be a system of mentors within companies, but also across companies. More senior and experienced employees could become the mentor of job entrants in the company or from other companies and support and train them in very specific skills.

#### **7) Special training offers for SMEs (managers and staff)**

As data shows (Manshanden et al. 2009), a remarkably large number of SME managers is low skilled while the vast majority is medium skilled. According to an English survey their participation in training is low due to a lack of information about training possibilities and, perhaps more important, resources (skillsmart retail (2007a): 18). Social partner organisations and sector associations together with larger retailer companies and with training institutes should jointly develop relevant training and set up initiatives to bring the utility of continuing vocational training to SME managers. Existing models should be made public and good practice examples should be disseminated.

While training providers already support training courses for managing occupations a certain focus on SMEs in retail is missing at least in some countries (skillsmart retail 2007a). In countries where specific training institutes of employer and employee bodies (chambers) exist, such as Germany, training costs nonetheless provide an obstacle for large numbers of SMEs and in particularly for micro businesses. While the need for continuing vocational

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<sup>42</sup> <http://www.eurema.se/index.html>



training is widely accepted, the utilisation is still low. In some countries regionally based joint training courses and in some countries even sector specific facilities should be developed particularly for training of SME managers and their staff. The chambers of commerce as well as trade unions and their training institutions should play a vital role in developing such training networks. This could help to minimise costs of training as well as to find suitable training providers. In the ideal case there is a skill need assessment within the companies at the beginning. Companies of the sector then jointly decide about training needs and send their staff to commonly organised trainings offered by external training providers. This could help to reduce training costs. In some countries (e.g. Austria) these training networks are supported by the public employment service because when they are specially targeted at certain groups, e.g. the ageing workforce, which applies particularly for service workers and clerks in France right now and for all other countries in the future. While innovative training solutions have been developed in the framework of Leonardo da Vinci and other European programmes, their recognition and adaptation by SMEs still seems to be very low and a stronger mainstreaming and dissemination of the results of these projects seems to be necessary. Training institutes as well as sector representative should also stronger address training needs of migrant businesses and support them specifically.

In the Shop Around the Clock and V-stores scenarios internationalisation will become more important, also for SMEs. Skills in international trade management are essential for managers of SMEs that aim to expand their business internationally. Special training programmes are needed to support the development of international trade skills. An example of a vocational training initiative in international trade management for SMEs is ITM Worldwide. ITM Worldwide is the result of three projects within Leonardo da Vinci in the period 1999 – 2008. ITM Worldwide has been developed by trade organisations in Sweden, Norway, Iceland, Greece, Hungary, Lithuania and Slovenia and collaborates with trade organisations worldwide.

#### **8) Addressing the demand of businesses run by migrants**

In most of the major European cities (though not only there) migrant businesses in retail and gastronomy have expanded in the last years. They are not only serving the demand of growing ethnic communities in these cities, but increasingly take the opportunity to run a family business and thus find a niche for better integration and gain a higher social status. They are also taking over businesses where there is no (family) successor and the native population do not want to take over. These businesses are growing and contribute positively to the labour market and economic situation in their countries. In some cities and countries migrant participation in apprenticeship models and initial vocational education and trainings is said to be low and the knowledge of some of the business owners about the possibilities is also neglect able. The education and training system should react on this challenge by designing and offering respective training courses. Public authorities should take stronger account of these businesses and convince them to take part in education and training models to strengthen the quality of their own businesses and to give the employees the possibility to enhance their employability. In Hamburg a foundation was launched to support migrant businesses in training migrant apprentices to enhance their job opportunities. There is no special focus on retail within this project but due to changes in the economic structure of the city the best job opportunities are in retail and service occupations.<sup>43</sup>

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<sup>43</sup> <http://www.asm-hh.de/jobstarter.htm>

### **9) Foster sector specific skills at an early stage**

Ongoing technological change and fierce competition in the sector make it necessary to early combine theoretical, academic and vocational knowledge at all educational levels and in all forms. The transferability and connectivity of the different education and training systems should be enabled.

A good example for the adoption of the education system to better meet business needs is the United Kingdom. To improve the matching of skills taught at schools and skills needed by the industry the British department for children, schools and families has created a new education pathway for children from 14 to 19 years of age.<sup>44</sup> The so called 'Diploma' was jointly founded by education officials and the industry and tries to bridge the gap between general academic and vocational education. For the retail sector the relevant skill councils participate in the programme; 'skillsmart retail'<sup>45</sup>. The sector skills council contributed to the design of the sector specific vocational education part of this education pathway, which will complement the existing pathways in the British education and vocational training system and lead to accepted school leaving certificates. The diplomas combine principal learning (knowledge about the chosen sector endorsed by employers and universities), learning of generic functional (English, Maths and Computer skills) and social skills, as well as additional and specialised learning: selected courses from the classical pathways of the General Certificate of Secondary Education (like Accounting, Art, Biology, Business Studies, Chemistry, Economics, Geography, Natural Economy and Physics) or A-level examinations. The diplomas are rounded off with mandatory placements of at least ten days in a company of the respective sector.

Another example of further co-operation with retail business is the programme by the METRO Group in which the local branches of this firm collaborate with over 100 schools in Germany. The aim of this programme is to introduce the retail sector to pupils and students and to better match skills taught at schools and the needs by the retail business.

The co-operation with retail businesses can guarantee that employment related skills are continuously kept up to date and that latest developments are integrated in the curricula and practice case studies. The education path also gives pupils a general and broad view about the modern supply chain in the retail sector. This will be especially helpful in order to address the challenges in the Shop Around the Clock and V-stores scenarios.

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<sup>44</sup><http://www.dcsf.gov.uk/14-19/index.cfm?go=site.home&sid=47> from October 2008 and <http://yp.direct.gov.uk/diplomas/> from October 2008

<sup>45</sup> [http://www.skillsmartretail.com/categories.php?pages\\_id=73](http://www.skillsmartretail.com/categories.php?pages_id=73) from November 2008

## 16 Recommendations

### 16.1 Introduction

This report concludes with a number of ‘other’ (i.e. going beyond education and training) conclusions and recommendations based on the results and insights gained during the course of this study. They include the results of an intensive two day workshop with various stakeholders and the European Commission during which the draft final results, including preliminary recommendations, were discussed. The conclusions and recommendations apply to the sector at large (including individual firms, sector organisations, chambers of commerce, social partners), intermediary organisations, education and training institutes, as well as policy-makers (EU, Member States, regions).

The recommendations point into viable and useful directions rather than they present ready-made proposals for change. Reflection and debate, and finding creative answers to plausible futures in skills and jobs is, in the absence of a crystal ball, the way forward. The bandwidth between the expected developments in the most extreme scenarios is indicative for the degree of uncertainty by which the future should be approached. Solutions to future skills needs should therefore be flexible, smart and encompassing enough to address the differences between the various scenario outcomes, not knowing what real future will eventually emerge.

### 16.2 Main other recommendations

#### 1) Improve collaboration between all stakeholders

A principal recommendation to meet emerging skills needs is to intensify co-operation between all relevant stakeholders in the sector. The challenge to overcome sectoral skill gaps and shortages will only be met sufficiently if industry, training providers, social partners, research and public authorities act in concert. This will be of utmost importance regarding the foreseen quantitative employment developments in the sector. This was already demonstrated in section seven. Collaboration is not only required to meet skills needs, but – perhaps even more important - also to support the development of sectoral learning strategies addressing the future demands caused by technology.

#### 2) Improve the image of the sector – among the young, the high-educated and especially women

The image of certain retail occupational functions is in general low (skillsmart retail 2007a: 24) and labour turnover is high in the sector (ILO 2007: 23). If staff is subsequently leaving the company this will have a double negative effect, first, to amortise training costs and, second, to hire new skilled staff. Improving the image of the sector is necessary to attract more and better educated people to the sector. An important element could be the perceived lack of career possibilities. Especially among higher educated employees this is an important prerequisite to favour working in the sector. More effort should be made to show that the sector indeed is interesting to work for and that there are career possibilities. Internationalisation of smaller retailers could support this. Another important element is the attractiveness of the working conditions and more specifically the working time. Longer opening hours and increased flexibility of the workforce do not always match family activities and family needs. More family-friendly working conditions could support

improving the image and attractiveness of the sector, especially to women. To improve the image of the sector and keep up good working conditions a solid co-operation between all sector representatives including trade unions is necessary.

### **3) Improve career guidance**

Career guidance can be used to pursue the following two objectives: First of all, it can help to redirect pupils and students to occupations where an increased demand is expected and to attract them to the sector in particular. Secondly, career guidance assists in supporting the placement of those mature workers which are threatened of becoming or already are unemployed. In all scenarios, it is expected that the numbers of medium and low skilled occupations like service workers, logistics workers and administrative support staff in retail will decrease. Career guidance assists in finding new job possibilities within or outside the sector. In combining career guidance with skills assessments (e.g. potential analysis) as well as with the recognition of soft skills by companies, the quantity of placements can be increased for the employed as well as for labour market entrants.

In most countries career guidance for pupils is undertaken by several different actors such as schools, training organisations, public employment services and related career information centres, trade unions, universities, sector organisations and companies. In order to enhance career guidance for pupils a solid regional co-ordination between these actors can be very effective as this helps in counselling and directing students into a profession suitable for them.

The sector skills council in the United Kingdom provides special features on its web page to inform about and attract young pupils to the sector. Additionally, so called retail ambassadors can be invited by schools to inform about the sector and to act as a role model for youngsters. Career guidance can also help to diversify the still traditionally divided workforce of the sector. This will become important in the future in order to fully exploit the whole potential of the labour force. In Germany and Austria the “Girls day” is an initiative where female pupils can inform themselves about technical occupations. It is supported by the major sector players of the countries and by the ministries of education.<sup>46</sup> Such approaches should be directed to attract more women to the technical occupations of the sector and thus help to diversify the labour force. In some regions motor vehicle repair companies and other craft related trades are participating in the programme. Though these initiatives are not primarily targeted at employment in trade and crafts as such, a wider diversification of professional interest especially of young girls away from the retail trade sector will help to bring the numbers of new entrant seekers more in line with actual possibilities. In both scenarios with fast technological change this becomes important because job opportunities for women in retail will become fewer. In recent years, in both countries also ‘boys days’ were developed. However, its intention mainly was to attract male labour to social occupations. A strong co-operation between institutions in career development as well as sector representatives could help to improve matching of labour market demand and supply in the future.

Such a co-operation – set up slightly differently - could also help to improve career guidance of employees who already are or will become threatened by unemployment in scenarios with fast technological change. Especially logistics workers, administrative support staff and service workers will be negatively affected by these developments. It thus seems of the utmost importance that the education and training systems prepares itself for this development. Career guidance assists in finding new job possibilities within or outside the

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<sup>46</sup> <http://www.girls-day.de/>

sector. Professionals equipped with the required skills and qualifications are available on a regular basis but do not apply for vacancies due to the lack of information on the labour market possibilities. Career guidance and personal development for mature lower-skilled workers could be supported by an assessment of those skills which are not certified or documented so far. Systems for the recognition of prior learning (RPL) support the determination to what extent people possess necessary competences for a new job (Duarte 2004). The integration of RPL in career guidance and targeted training bridges the gap of hidden competences especially for mature workers. Some Member States already include RPL in their system. In Portugal, for instance, a national system of Recognising, Validating and Certifying Prior Learning (RVCC) is implemented through a network of centres. Adults, whether employed or unemployed, are offered a three-tiered service, namely information, counselling and complementary training, including the accreditation of competencies (OECD/European Communities, 2004, p. 31). The centres are supported by the Ministry of Education and are run by training organisations or universities. The certification and validation of skills is conducted by a jury with an external evaluator. Companies, sector representatives and intermediate institutions such as the public employment service and training institutions should develop and implement career paths which support the vertical job mobility of lower skilled workers within the sector. While major retail companies provide further training and up skilling for higher educated occupations, low and medium educated staff is not as strongly supported by internal programmes. This also holds true for employees in SMEs of the sector.

Concerning SMEs, another conceivable option would present the co-operation between companies, sector representatives, training institutes and external human resource counsellors, especially to further develop or up-skill the “endangered” workforce. Due to the scenarios, there will be less demand for administrative support staff, logistics workers and service workers in the future. In order to prevent skill gaps in other occupations within the sector and to prevent unemployment of these workers, career management by way of such kind of networks could be helpful. This kind of human resource development could jointly implemented by all actors – and most appropriately lead by training institutions. Especially for microenterprises this could be a possibility to improve their - generally underdeveloped, if at all existing - human resource management. A mature human resource management combined with carrier planning could also aid to reduce the relatively high labour turnover rates of service workers in the sector because job entrants may realise that employment in the sector is not a dead-end street but opens up several possibilities.

#### **4) Improve diversity within the sector**

The workforce of the sector is more divided according to traditional standards than any other. The vast majority of retail service workers is female and the majority of craft workers male. For several professions this strong gender bias clearly limits the ability to adapt to changes (e.g. what regards the increasingly required combination of different technical and non-technical skills). To overcome this strategic weakness diversity management in personnel recruiting should be strengthened and diversity related carrier guidance programmes should be enhanced. To attract more women to technical occupations of the sector will require a major change in work organisation and conditions. Such a project will have to pay special attention to the prevailing social situations relevant for women in the labour market, especially the difficulties in combining family life with a professional career. This will help to contribute to higher diversity on the labour market as such.

An improvement of work organisation will also be necessary to keep older workers in employment. On the one hand this is especially crucial to keep the knowledge and the

experience of older workers available and to avoid skill gaps – especially for higher qualifications. On the other hand it will be necessary to accompany the employment of an aging workforce with more constant learning offers to avoid a down-skilling given the constant change in technology. Corresponding part time retirement schemes should be developed by the responsible authorities and applied by the companies.

### **5) Organise European wide recognition of skills**

Due to the internationalisation especially of large retail companies and the use of more digital applications it will be necessary to constantly adapt the knowledge and skills of the employees. To ensure international standards as well as the required mobility of labour a European recognition of skills and a corresponding adaption of national initial vocational training is recommended. The European Qualification Framework can provide a common basis for the European retail sector to pursue this aim. Social partner organisations, the European Commission and companies as well as training providers should adopt the European wide validation system for the sector and develop a special certification system. This would also support transnational mobility within in the sector and eases transnational investments.

### **6) Invest strongly in human capital and lifelong learning**

Lifelong learning is the key for companies as well as for individuals to match competitiveness and to prevent less favourable scenarios. Social partners should develop joint programmes of lifelong learning in cooperation with public authorities and other relevant stakeholders such as training organisations and universities in order to up-grade skills of the workforce in the sector. Governments should further develop the legal framework for supporting life long learning at all ages. The programmes should be tailored to the specific needs of SMEs in the sector. Lifelong learning should encompass all skills levels aiming at raising basic social skills as well as technical sector skills. All available international, national and, if available, regional and local pathways should be used in order to finance lifelong learning. Cost sharing mechanisms between actors such as public authorities, companies and individuals need to be developed and lifelong learning (LLL) throughout the life cycle should be promoted. Learning must be made more attractive to all, e.g. via tax incentives or a change of attitudes in order to integrate learning into all phases of life and to incorporate a lifecycle approach to work. In addition, the training and education systems in the Member States need to be improved to cope with more modular based needs for VET to cover knowledge shortages and up-skilling needs, as already stated in the above implications for education and training.

## **Annex I. Contributors to this study**

This report appears in a series of 11 sector reports on the future jobs and skills commissioned by the European Commission and executed by a core consortium of TNO (Delft/Leiden, the Netherlands), SEOR Erasmus University (Rotterdam, the Netherlands) and ZSI - Zentrum für Soziale Innovation (Vienna, Austria). The consortium was led by Dr F.A. van der Zee (TNO Innovation Policy group; TNO Innovation & Environment). The report on the distribution and trade sector was prepared by the core TNO-SEOR-ZSI consortium in joint collaboration with Prof. C. Hipp, Brandenburg Technical University Cottbus (subcontractor).

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## **Annex III. Strategic options – a detailed description**

### *A. Recruiting workers from other sectors*

A possible solution to meet skill needs is to recruit workers from other sectors, which have and can provide the abilities needed for the sector and/or fulfil the requirements of a specific job. For managers of large corporations it is quite usual to bring their general know-how to bear in different sectors. Also for business professionals (e.g. financial analysts, sales managers) the sector they are working in is of lower importance. On the other hand, the sector mobility of low skilled workers is much more limited than the mobility of higher educated and higher paid employees, although it is also quite easily possible for them to move from one sector to another. The less the grade of sector specialisation of the occupational profile the easier employees are able to change between sectors. In other cases recruiting workers from other sectors will need training of sector specific skills. In some cases it is also possible for highly specialised workers to change sectors.

### *B. Recruiting workers from other Member States*

Recruiting workers from other Member States could be in some cases a possibility to overcome skills problems. However, owing to language, cultural and other problems, mobility within the European Union is still underdeveloped. Furthermore, it has to be considered that this strategic option could turn out to be a zero-sum game not for the national but for the European economy. Border regions are attracting workers from other countries mainly because of wage advantages and can in this way succeed in closing their skills shortages and gaps. However, the regions that face such outward migration (e.g. Poland, East Germany, Parts of Austria, Hungary, Czech Republic, Slovenia, Bulgaria) will face serious problems in meeting their labour market demands. These countries therefore have to recruit workers from non-Member States. Even if this might appear a temporary problem, from a longer term perspective, such developments could have serious consequences for the growth of the regional economy (“brain drain”).

### *C. Recruiting workers from non-Member States*

Recruiting workers from other Member States is not a zero-sum game for the European economy. Yet this strategic choice is as limited in its overall impact as the strategic choice that proposes to recruit workers from other Member States. Moreover, in all Member States significant barriers for entering the labour market for workers from outside the EU exist, even for temporary workers. To increase the influx of these workers by, e.g. increasing the immigration quota several political hurdles have to be mastered. Action can be taken here at Member State as well as at EU level.

### *D. Recruiting unemployed workers with or without training*

Recruiting unemployed workers without training is a strategic option, especially in case of skill shortages (if there are not enough skilled workers to meet the employers demand). This option should in these cases be combined with adequate training. Unemployed workers might have various placement handicaps, especially skills deficits and poor levels of basic qualifications. Low educated groups are still representing the gross of the unemployed labour force, but also highly skilled workers could be threatened by unemployment. Without doubt prejudices against the unemployed and especially mature age unemployed in the human resource departments have to be reduced and training, which could be costly, has to be financed.

### *E. Recruiting young people coming from the education system, with or without re-training*

This strategic choice is always a possibility to overcome skill shortages as well as skill gaps. But demographic change should be taken into account. While in the next few years, until around 2015, there will be a continuous inflow of students entering the labour market, a significant reduction is expected in 2020. In some regions there is already a need for young qualified and skilled workers or apprentices in Europe.

### *F. Training employed workers*

In some cases training and re-training could also constitute a strategic choice to meet skill demands. In this case, the employee will be trained for a new working place or task. In general, re-training ends with a formal graduation or certificate. Re-training is an option if the work place or the occupational function is not needed any more. But re-training is only one option. Further education or further training, refresher training and updating courses, or advanced vocational qualification to adapt the workforce to emergent skills needs are also options, which should be taken into account. Re-training or further training of employees can encompass all levels of skills. Training and qualification could be done in-house and on the job as well as by an external education institution. It is more likely that less fundamental variations of up-skilling or re-training will be a strategic choice because re-training has to be regarded as a long term and quite expensive measure compared to the other vocational education forms.

### *G. Changing the work organisation*

Work organisation can be defined in different ways. First, it can be defined as a system of work organisation (e.g. Taylorism, Fordism and Post-Fordism) and second, as a form of division of labour and specialisation. In modern economy productivity is based on the division of labour and therefore also on the division of skills. There are several instruments of work organisation to react on skill shortages and gaps. Thus, changes in the work organisation can help to overcome skill gaps. In general, work can be reorganised in the following possible ways:

- Group work: A group is a limited number of people who work together over a longer period with a frequent, direct interaction. A group is defined through the differentiation of roles and joint values. Groups are able to produce better results than single persons due to the combination of different competencies and experiences, the reduction of wrong decisions, stronger work motivation, the direct use of information, new insights and creativity and a better acceptance of decisions, just to mention a few of the many advantages. There are several kinds of group work, like project groups, quality groups and learning circles, as well as committees.
- Job rotation: Within this type of work organisation several people change their work places in a planned alteration. Job rotation enhances the overview of the different production processes, the understanding of different tasks and the feeling for group work. Additionally, monotony and dissatisfaction are reduced.
- Job enlargement: Extension of the scope of work through the combination of several structurally equal or similar tasks. It can produce similar effects as job rotation.
- Job enrichment: Extension of the scope of work through the combination of several structurally different tasks. The scope of decision making and self-control increases, as well as the quality and quantity of work. In general, up skilling of the employee is necessary, but this is also implemented on the job.

Under the influence of new technologies, like information and communication technologies, virtual forms of work organisation, which substitute hierarchies through a horizontal network co-ordination, are also possible. In this sense, mergers and acquisitions as well as project based business co-operations are also available options to change the work organisation. Both measures are strategic possibilities to get access to needed resources or to incorporate new competences. Modern (communication) technology can support the co-ordination and co-operation of labourers working at different places and in combining their respective strengths. Changing work organisation can combine several competences if the workforce lacks multi-skills (skills from different disciplines like finance and technical skills) which are necessary to fulfil the future tasks.

#### *H. Outsourcing and offshoring*

In public discussion the terms outsourcing and offshoring are mainly used together, yet it must be emphasised that they describe different technical approaches. While outsourcing means the transfer of management or day-to-day execution of business functions or processes (production, manufacturing, services) to an external service provider, offshoring describes the relocation of business functions or processes from one country to another. Both could be applied as a strategic choice on company level to meet skill needs, by integrating the knowledge, experience and competences of the other firm in the production process.

Outsourcing of personnel as a result of technological change and economic pressure was and still is an ongoing trend. Skill gaps can be closed by hiring subcontractors with the needed knowledge and competences. If one considers this strategic option to meet skill needs, it has to be taken into account that for subcontracting firms, freelance or contractual workers continuing vocational training often plays a marginal role, because employees are all too often indispensable. Outsourcing and offshoring is therefore a limited strategic option to overcome skill gaps. It seems to be more adequate to overcome skill shortages.

#### *I. Changing vocational education*

Changing vocational education has a long-term effect. It must be taken into account that changes will have a substantial impact in quality and quantity starting at the earliest within three years time after the changes. The process of changing initial vocational education in content or in structure takes itself several years. The process from defining the needs and problems to the implementation of a new curriculum involves several stakeholders from different expert levels like companies, social partner organisations, training institutes as well as representatives of national and regional education administration. These bargaining processes could take several years and are dependent of the VET-system of the European Member State. Hence, this strategic choice will only be drawn if major structural changes are expected.

Despite these facts, possible changes can be seen in a stronger modularisation of curricula of initial vocational training as well as in building up or strengthening interplant and interregional training infrastructure. The first option could in the long run help to overcome identified skill needs in a sound, flexible and a relatively quick way. The second option is amongst others a possibility to provide the latest high-value equipment for training quickly by sharing resources of several partners.

#### *J. Designing and offering new courses (continuing vocational education and training)*

Once it is clear that the current content of vocational training is not up to date and therefore does not address the demands, the development of new courses for continuing vocational

education and training could be a strategic option with a short term impact (*see also L Stronger cooperation between stakeholders*).

*K. Improving the image of the sector*

Improving the image of the sector could be an easy and suitable measure especially to overcome skill and labour market shortages and attract new employees. Several instruments could be implemented by sector organisations in co-operation with different non sector actors like schools, career management organisations, training organisation, public employment services, and public administration. Instruments could be company visits for pupils, offering internships for pupils and enhanced public relation. Especially in sectors where framework conditions and occupational functions changed fundamentally, due to technological or organisational restructuring or low wage levels, this offers a possibility to overcome stereotypes as much as old fashioned views and to attract more labour. Moreover, this measure does not only provide a chance to overcome stereotypes in relation to the sector but also to some occupational functions. The effect of this strategic option is long-term. In consideration of the apprenticeship system, which can take up five to seven years (if the specialisation of high qualified jobs in the sector is taken into account) until the volume effect is reached; one must arrive at the conclusion that in some occupational functions it has to be initiated right now.

*L. Stronger cooperation with the industry*

A stronger co-operation between industry and training institutes on a regular basis is one possibility to meet the skill needs in the sector. In some sectors and countries training of employees does not seem to be in line with the industry's emerging needs. New training and teaching solutions are to be developed between the industry, sector representatives, education institutions and research centres, public bodies, etc. Information exchange and a stable cooperation between the relevant stakeholders could improve the matching of training needs and demands. In the long run it will enhance the efficiency of training output, strengthen the quality of training and maximize the individual potential. To build up this kind of cooperation takes time, but in the long run it might well be capable to provide accurate solutions for problems. Networks and partnerships between these stakeholders to forecast skill needs in the sectors also present a long term measure. They could help to define emergent skill needs. While knowledge about the development of skill supply is quite high, the knowledge about the development of skill demand in different sectors is still improvable. These kinds of networks can cooperatively detect the need for action and contribute to the development of recommendation of actions.

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