

# NEW SKILLS FOR NEW JOBS: CHINA AND THE EU

SHARED LABOUR MARKET EXPERIENCES  
TO INFORM THE HARMONIOUS AND  
SUSTAINABLE SOCIETY OF THE FUTURE

Directorate General for Employment,  
Social Affairs and Equal Opportunities,  
European Commission

The Institute of Population and Labor  
Economics, Chinese Academy of Social  
Sciences  
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## New Skills for New Jobs: China and the EU

Shared labour market experiences to inform the harmonious and  
sustainable society of the future

Directorate-General for Employment, Social Affairs and Equal Opportunities,  
European Commission

The Institute of Population and Labor Economics,  
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## FOREWORD

Europe's and China's future employment challenges – exploiting the job potential of a greener economy; increasing competitiveness and competing for talent in a globalised knowledge-based economy; and the response to demographic ageing – are essentially driven by global developments. In this context; engaging in international dialogue is not a choice, it is a must.

The European Commission and the Chinese Academy of Social Sciences (CASS) are fully aware of this need and have started as early as 2006 to exchange experiences and knowledge on employment and social policies. This dialogue was formalised with the signature on 14 January 2008 of a Memorandum of Understanding between CASS and the European Commission's Directorate-General for Employment, Social affairs and Equal Opportunities. It gave birth to fruitful and lively exchanges, addressing issues such as ageing, youth employment or skills development and matching, and more recently the economic and financial crisis allowing experts and policy makers from both sides to enhance their mutual knowledge and compare practices. Most importantly, it highlighted the importance of dialogue and commonalities of challenges in a number of areas. This joint study, a first of its kind, and that draws on the European Commission's "New Skills for New Jobs Initiative", is a further proof.

Both China and the EU share a common aim to upskill the labour force and recognise that the majority of those that need upskilling are already in work. The development of a skilled and adaptable workforce is considered to be a crucial policy response in moving towards harmonious and sustainable social and economic development. Engagement between the EU and China is already making, and will continue to making a contribution to smarter, inclusive, harmonious and sustainable societies in both regions.

**Prof. Cai Fang**

Director General

Institute of Population and Labour Economics

Chinese Academy of Social Sciences

**Xavier Prats Monné**

Director

Directorate-General for Employment,  
Social Affairs and Equal  
Opportunities

European Commission

## MISSION STATEMENT

The Chinese Academy of Social Sciences (CASS) was established in 1977 and is the highest academic research organization in the fields of philosophy and social sciences. It is an influential think tank, and very active in the reform process taking place in China. A fruitful seminar on the European and Chinese experiences of employment and social policies took place in September 2006 in Brussels. To formalise a structured cooperation, a Memorandum of Understanding was signed on 14 January 2008 in Shanghai by Commissioner Vladimír Špidla and CASS Vice-President Wang Weiguang.

The European Commission is one of the main institutions of the European Union, together with the European Parliament, the European Council and the Council of the European Union. It looks after the interests of the European Union as a whole rather than those of national governments. It drafts proposals for new European laws and acts as the executive arm of the European Union: it implements decisions, executes the budget, initiates and manages programmes. The Directorate-General for Employment, Social Affairs and Inclusion of the European Commission is responsible for matters including those related to employment, discrimination and social affairs such as welfare.

A joint seminar took place in Paris on 27-28 November between CASS and the European Commission on the theme of "New Skills for New Jobs", which marked the launching of a joint study project to be carried out on this issue.

The authors working on the study project from CASS: Prof. Du Yang, Prof. Wang Meiyuan, Dr. Qu Yue, Dr. Lu Yang and Dr. Qu Xiaobo.

From the Directorate-General for Employment, Social Affairs and Equal Opportunities of the European Commission: The responsibility for scoping and developing the study project was ensured by Miranda McIntosh and Egbert Holthuis from the European Employment Strategy unit, with the help of Inga Pavlovaite, Tina Weber and Pat Irving from GHK Consulting. Coordination was carried out by Michael Morass and Daniel Waterschoot from the International Affairs unit.

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## KEY MESSAGES

This report presents the research findings from a joint China and EU project on New Skills for New Jobs. The project first examined the global economic crisis, global developments and the challenges faced in China and Europe, and the associated issues of sustainable growth and employment. Then, the Chinese research team explored four issues established at the joint Beijing seminar as common challenges: the demographic transition and labour market changes; the green economy and green jobs; labour market matching – graduates, employment and training; and the social protection system. The European research team prepared a series of five case studies linked to aspects of European practice pertinent to the common challenges that emerged from the Beijing seminar.

The key findings from the report can be summarised as follows.

In the short term, the key challenge is to tackle the consequences of the 2008 global economic crisis. The crisis has impacted on the labour markets in both China and the EU, particularly on vulnerable groups: young people, the low skilled, migrant workers and older workers who have experienced job losses in the short term, though need to be re-attached to the labour force to ensure their contribution in the post crisis period.

Many sectors with existing structural problems have suffered severely from the economic crisis. Strategies have been put in place in China and the EU to support vulnerable groups to facilitate their reintegration into the labour market. Based on the current crisis, the EU and Member States' governments have drawn lessons that the free market concept cannot work alone and that government intervention is important and unavoidable. It is also acknowledged that it is crucial to coordinate policies aiming at long-term structural reforms with those offering short-term incentives. In the end, the solutions lie in revitalising productivity growth and retaining core technology competence and using this to continue innovation. As recovery kicks in, both China and the EU share a common interest in upskilling the workforce as a means to allow productivity growth and sustainable economic development.

In the long term, China and the EU both face challenges linked to climate change, a global issue which is common to both contexts. Technology and training are key elements of the move towards a low carbon economy recognised in both cases as the relative importance of sustainable development increases. The movement towards a low carbon economy is expected to generate winners and losers in the labour markets, with the effects contributing to competitiveness, productivity in some sectors, while job losses and / or relocation in other sectors. In the proposed growth sectors, the movement towards a low carbon economy is expected to transform jobs and skills demand and introduce new skills and occupational profiles. The number of green jobs anticipated in China and the EU is significant, but the shortage of 'green talent' is a problem that needs to be addressed.

There are also similarities in the demographic challenges faced by China and the EU. In both cases the population is ageing, with ageing even more advanced in China than the EU. The challenges of ageing will need to be addressed: diminishing labour supply; low labour market participation of older workers; the disadvantages faced by older people in the labour market; and the need for older people to upskill.



Faced with such challenges, economic structural change features as a mid/long run aim in both China and the EU. Major actions aim to create and stabilise new sectors and new jobs and understand future skills needs. The development of a skilled and adaptable workforce is considered to be a crucial policy response in moving towards harmonious and sustainable social and economic development. Both China and the EU share a common aim to upskill the labour force and recognise that the majority of those that need upskilling are already in work. It is a challenging task to ensure that individuals have access to and actually take up training and that the relevant stakeholders understand the need to provide accessible training to existing workers. In China, skills development is seen as a necessity for productivity growth given the erosion of low cost labour.

In the EU, for example, the need for a skilled and adaptable workforce is explicitly supported in the EU2020 strategy. Skills development features strongly as a means through which the two key challenges of demographic change and the shift to a low carbon economy will be realised. Mismatch is an issue for university graduates in China and the EU, with graduates failing to enter the respective labour markets at levels commensurate with their skills. Employability, work experience and soft skills and for those already in the labour force, extending working lives are key areas of concern.

Finally, there is huge regional / country difference in the economic setup and performance within China and the EU respectively, which requires flexible policy making according to the different regional and country situations.

Case studies presented in Part II of the report explore in more detail several examples of European practice to address the key challenges of skill development and matching, skills anticipation, and social protection. This includes responses to the demographic ageing in the health and social care sector across the EU, the skills initiatives to assist the transition to low-carbon economy in the north-east region of the UK, requisite procedures and processes to produce harmonised data available from Eurostat which underpins the policy-making, measures to assist the transition of young graduates into the labour market in Portugal and dual vocational training systems of apprenticeships in Germany and Austria, and finally, the protection developed for non-standard workers in the EU.

## INTRODUCTION

This report presents the research findings from a joint China and EU project on New Skills for New Jobs, undertaken by GHK on behalf of the European Commission DG Employment, Social Affairs and Equal Opportunities and, in parallel cooperation, the Institute of Population and Labor Economics, Chinese Academy of Social Sciences. The project comprised two parts as follows:

- Stage 1: examined the global economic crisis, global developments and the challenges faced in China and Europe, and the associated issues of sustainable growth and employment. These reports, prepared by the Chinese and European Research Teams (to add web link to publications) were discussed at a Joint Seminar on Recovery, Promotion of Employment and New Skills, for Sustainable Development held at the Chinese Academy of Social Sciences, Beijing, on 14-15 December 2009 (web link to add).
- Stage 2: comprised two complementary, though different approaches:
  - The Chinese research team explored four issues established at the Beijing Seminar as common challenges: demographic transition and labour market changes; the green economy and green jobs; labour market matching – graduates, employment and training; and the social protection system;
  - The European research team prepared a series of five case studies linked to aspects of European practice pertinent to the common challenges that emerged from the Beijing seminar.

This report draws on both stages of the project and comprises two Parts. It first identifies the short and long term challenges facing China and the European Union (Part I, Chapters 1 and 2 respectively), then moves on to examine future skills needs and the need for an adaptable workforce (Part I, Chapter 3). Part I Chapter 4 provides conclusions on the common challenges which provided the context for the five case studies that are presented in Part II of the Report:

- Case study 1: Upskilling (and re-skilling) to address the long term challenges of demography – health and social services sector;
- Case study 2: Skills initiatives to assist the transition to a green economy;
- Case study 3: Facilitating matching – apprenticeships and measures to support graduates into the labour market
- Case study 4: Harmonised data collection and the use of data to inform anticipation and matching activities; and
- Case study 5: Protection of “non-standard” workers.

The aim of the case studies was to provide policy makers in both China and the EU with ideas and evidence of practice to facilitate labour market transitions.

## **PART I – COMMON CHALLENGES AND POLICY RESPONSES**

# 1 SHORT TERM CHALLENGES: THE GLOBAL ECONOMIC CRISIS

This section explores the global economic crisis and the effect of the stimulus and recovery plans on economic recovery and employment in China and the EU. The crisis has affected both China and the EU, though the degree and timing of impact are different. Indeed, at the time of finalising this report (May 2010), the economic indicators for China have been so positive as to indicate the end of the crisis. Commonalities and differences between the EU and China are discussed in turn.

## 1.1 Challenges for vulnerable groups and support for businesses

The crisis has impacted on the labour market in both **China and the EU**. Labour markets are changing rapidly and unemployment has risen and has affected particular vulnerable groups: young people; low-skilled workers; temporary workers; and migrant workers. In China, urban unemployment rose to 4.5% its highest level for five years with low skilled migrant workers in the informal economy those most affected.

In the EU unemployment continued to rise consistent with the concept of 'jobless recovery'. As evidenced by harmonised unemployment data available from Eurostat (see also case study 3, Part II), unemployment in Q42009 rose by 0.5 million on the previous quarter. The total unemployment rate at Q42009 stood at 9.3 per cent while youth unemployment reached 20.3 per cent and the unemployment rate for third country nationals was 20 per cent, one percentage point higher than in the previous quarter.<sup>1</sup>

Strategies have been put in place in China and the EU to support vulnerable groups to facilitate their reintegration into the labour market. Public employment services (PES) have been strengthened and have a key support role assisting individuals using various means including jobs fairs and other matching activities and vocational training. The 'spring breeze' action in **China** provided training and job search support, through, for example jobs fairs to migrant workers returning to cities after the spring festival. Assistance was also given to migrant workers to set up businesses or find jobs in their home towns.

In **the EU**, support offered through the PES has been intensified (for example, through allocation of additional staff to address the needs of increasing numbers of jobseekers) and the European Social Fund is being used to provide training and other forms of support to facilitate the reintegration process. Meanwhile, EU governments have also endeavoured to support industry and enterprises to help them through the crisis and promote economic growth. Further policy supports (such as taxation benefit, location choice and start-up capital) are orientated towards start up businesses to promote employment creation.

## 1.2 A difficult transition from education to employment

People with high level skills who are already in the labour force in general have been less affected by the crisis, but it was also apparent that the crisis did affect the high-skilled workers, as for example, through redundancies in the finance sector. Graduates from higher education have also experienced problems in making the transition from education to work. In **China**, labour demand is typically for people with lower level skills; hence graduates are experiencing problems getting quality jobs. In **the EU** graduates are experiencing problems

<sup>1</sup> Statistics in focus 22/2010 Eurostat, available at [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-SF-10-022/EN/KS-SF-10-022-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-10-022/EN/KS-SF-10-022-EN.PDF)

too as Eurostat data available across the EU indicates that a quarter of graduates are employed in jobs that are not commensurate with their skill levels.<sup>2</sup>

An increase in the numbers of people out of work means that the competition for jobs is heightened: a lack of work experience and basic competences are counting against graduates as they compete for jobs (see chapter 4 for further information) as employers are looking for people who are job ready and have the right mix of skills, knowledge and competencies.

### 1.3 Differences in economic performance and exit strategies from the crisis

There are clear regional / country differences in economic performance and response to the negative impact of the crisis within **China and the EU**. Member States in the EU diverge in their recovery (or exit) strategies. Differences in economic performance are also evident among the different regions in China. For example, since Chinese foreign trade and foreign direct investment (FDI) is concentrated in the coastal region, fast trade growth in this region also led to increased regional gross domestic product (GDP) and employment growth in comparison to other regions of China.

Furthermore, there are differences between sectors. In most cases, the current crisis has accelerated or intensified patterns of sectoral change. In **Europe**, less competitive sectors with over-capacity or with limited international competitive advantage (e.g. textiles, wearing apparel and leather products) have been losing employment to younger, growing sectors e.g. the computer, electronic and optical products sector.

In the context of the current economic crisis, after the financial services which was at the centre of the crisis, other sectors which were particularly affected were those dependent on capital investment and the financial markets. Sectors demanding high and complex financing (such as building and repairing of ships and boats sector and transport logistic sectors) and/or producing large capital goods (such as electro-mechanical sector) are among the most affected. Sectors which produce goods with high price elasticity of demand were also affected to a high degree (such as hotels and restaurants sector). Other sectors, such as the telecommunications sector, which was on an upward development track for the last few years, have seen growth slowing down, even more in the current crisis.

As recovery kicks in, both China and the EU share a common interest in upskilling the workforce.

Compared with developed countries, **China** has an absolute advantage in labour costs, but the gap has narrowed significantly. The decline of China's absolute advantage of labour cost mainly comes from its rapid growth in wage rates. Even if the increasing speed is considered, China will still maintain an advantage in manufacturing labour cost in the longer term, given the sheer scale of the country. But this advantage will be challenged from its neighbouring countries that have experienced fast economic growth, e.g. Malaysia, India, Thailand and Vietnam.

Up to 2000, China's growth was based on the expansion in the manufacturing sector and connected trade, where production processes did not require the workforce to have complex or high level skills. However, this has been changing with technological advances and the acquisition of technical know-how. Such changes require significant numbers of skilled

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<sup>2</sup> Eurostat and Eurostudent (2009): *The Bologna Process in Higher Education in Europe Key indicators on the social dimension and mobility*. Available from: [http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/2009\\_Eurostat\\_Eurostudent\\_social\\_dimension\\_and\\_mobility\\_indicators.pdf](http://www.ond.vlaanderen.be/hogeronderwijs/bologna/conference/documents/2009_Eurostat_Eurostudent_social_dimension_and_mobility_indicators.pdf)

workers to meet the needs of the new economic structures and for the economy to continue to deliver the high growth rates witnessed to date.

For **the EU**, increasing human capital and upskilling the existing workforce is a necessity for economic growth. In the context of accelerated technological and industrial developments, to remain competitive on the global marketplace the EU needs its labour force to become more productive. This has upskilling consequences across the labour force as a whole. New methods of production and market opportunities are closely related to research and development investment (RDI), which in turn needs to be linked into production processes. Response times between design and production have shortened and European workers need to be flexible and adaptable to ensure that they learn new techniques to keep up with changes in the production processes.

The overall trend shows a shift from blue-collar to white-collar employment and a general greening of jobs, which requires better educated staff, enhanced competences and the development of a multi-skilled workforce. However, as the baby boomers approach retirement age, increasing numbers of experienced workers are and will continue to exit the workforce. In addition, in some sectors, perceived as unattractive, young newcomers are limited. This will further exacerbate the mismatch between labour supply and demand.

#### **1.4 Declining domestic and global demand, the stimulus package and a resumption of growth trends**

The effect of the crisis and slowdown in **China** was evident through declining exports. Export growth dropped from 17 per cent in 2008 to minus 16 per cent in 2009<sup>3</sup>. In response to the decline the Chinese government introduced a 4 trillion yuan stimulus package to increase domestic demand.

The impact of crisis in China has been rather short-term and to a lesser degree than the effects evident in the EU. In China evidence indicates that the impact of the crisis is coming to an end and that the previous long-term growth trend has resumed. In terms of evidence of exit from the crisis in China some 30 million additional migrant workers have found work in 2009 compared to 2008. Therefore the policy focus has shifted towards medium-longer term challenges such as demographic change.

Spring 2010 forecasts announced that the recession ended in **the EU** in Q32009<sup>4</sup>. In comparison with China, growth in the EU is forecast to be subdued in the first three quarters of 2010, though is expected to gain ground in quarter four. The growth rate for 2010 is 1 percent and 1.5 percent for 2011. Employment is expected to fall by around 1 percent, leading to a further rise in the unemployment rate.

<sup>3</sup> WTO Secretariat, press release 26 March 2010, International Trade Statistics ([http://www.wto.org/english/news\\_e/pres10\\_e/pr598\\_e.htm](http://www.wto.org/english/news_e/pres10_e/pr598_e.htm) - checked 08/06-10)

<sup>4</sup> European Commission (2010) European Economic Forecast Spring 2010 European Economy 2/2010. Available at: [http://ec.europa.eu/economy\\_finance/publications/european\\_economy/2010/pdf/ee-2010-2\\_en.pdf](http://ec.europa.eu/economy_finance/publications/european_economy/2010/pdf/ee-2010-2_en.pdf)

## 2 LONG TERM CHALLENGES: CLIMATE CHANGE, DEMOGRAPHY AND SUSTAINABLE DEVELOPMENT AND EMPLOYMENT

This section highlights the long term challenges facing China and the EU examining the various trends contributing to anticipated long-term employment change. As with the previous section, it identifies areas of commonality and difference between China and the EU.

### 2.1 Green and grey - the common challenges of climate change ...

**China and the EU** both face challenges linked to climate change, a global issue which is common to both contexts. Both China and EU acknowledge the benefits of a move to a low carbon economy and it features in forward looking policy development to facilitate structural change. Technology and training are key elements of the move towards a low carbon future recognised in both cases as the relative importance of sustainable development increases. Both in China and Europe there is a common understanding of how greening will affect the jobs and employment as follows:

- Job creation, e.g. the manufacturing of pollution-control devices linked to existing production equipment (for some estimates in the number of jobs available in the renewable industries, see table 2.1 for further information);
- Employment substitution, e.g. the shift from fossil fuels to renewables, from vehicle manufacturing to rail car manufacturing, from waste incineration to recycling;
- Job losses, with no direct replacements, e.g. in the manufacture of packaging materials, that are being discouraged or eliminated; and
- Greening of existing occupations, evident in many existing professions e.g. plumbers, electricians, metal workers, and construction workers where skills sets, occupational profiles and working methods will simply be 'greened'.<sup>5</sup>

**Table 2.1 - Employment in renewables, China and several EU countries, 2006**

Renewables' sectors	Number of jobs	
	China	3 EU countries*
Wind	22,200	Germany 82,100 Spain 35,000 Denmark 21,000
Solar PV	55,000	Germany 35,000 Spain 26,449
Solar thermal	600,000	Germany 13,300 Spain 9,142
Biomass	500,000	Germany 95,400 Spain 10,349
Total	1,177,200	3 countries: 296,240

Source: "Green Jobs: Towards decent work in a sustainable, low-carbon world", UNEP/ILO/IOE/ITUC, 2008,9. \*data only available for selected EU countries.

<sup>5</sup> [http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms\\_098484.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_098484.pdf)

What is clear from Table 2.1 is that there is some difference in the technologies responsible for employment in renewables. In China most employees are linked to solar thermal and biomass whereas in Europe biomass is responsible for a high proportion of jobs along with wind and solar PV.

An ILO survey provides information on the education levels of workers in some of the emerging power industries discussed above. Workers in the wind power sector have the highest education levels (see Table 2.2 below) with some 90 per cent of employees educated at junior college, degree or masters levels (38 per cent, 50 per cent and 2 per cent respectively).

A high proportion of workers in the large thermal power sector (71 per cent) are educated at junior college level and above (26.1 per cent, 43.1 per cent and 1.8 per cent respectively). In comparison with workers in wind power and the large thermal power sectors, only 56.6 per cent of workers in the small thermal power sector are educated at junior college level and above (25.3 per cent, 27.7 per cent and 3.6 per cent respectively). What is noticeable, however with the small thermal power sector is that there are twice the proportion of workers educated at masters level and above than in the wind power and large thermal power sectors.

Regarding the composition of the workforce in these sectors, workers in the wind power sector are mainly middle and senior technicians or engineers while workers in the large and small thermal power sectors are typically senior and intermediate technicians or have intermediate technical qualifications.

**Table 2.2 Educational level of workers in Power Enterprises**

Education Industries	Junior Middle school and below	Senior High school	Vocational High school	Technical School
	Wind power	0%	4.0%	0%
Large Thermal power	2.5%	3.3%	3.0%	10.5%
Small Thermal power	4.8%	3.6%	9.6%	10.8%
Education Industries	Secondary technical school	Junior college	University	Masters and Above
	Wind power	4.0%	38.0%	50.0%
Large Thermal power	9.8%	26.1%	43.1%	1.8%
Small Thermal power	14.5%	25.3%	27.7%	3.6%

Emissions reducing technology is considered key in **China's** move towards a low carbon economy. While China has a reputation for high energy consumption and low 'green jobs' creation, Box 2.1 below highlights progress made in China to reduce emissions to date. Manufacturing is a major energy consumer in comparison with the service sector.<sup>6</sup> In a scenario where the service sector grows at the expense of manufacturing, China has the

<sup>6</sup> See data on energy consumption and value added from China Statistical Yearbook (2008), China Statistics Press.



potential to reach a desirable combination of low energy consumption, fast growth and full employment.

#### **Box 2.1 – Progress made to reduce emissions in China**

Since 2005 China has made progress in emissions reduction through aggressive energy efficiency policies. Greenhouse gas intensity has fallen sharply in China, though remains amongst the highest in the world. Per capita emissions are below the world average and are around one fifth of those in the US. China's 11<sup>th</sup> Five-Year Plan includes a major programme to improve energy efficiency nationwide, including a goal of reducing energy intensity (energy consumption per unit of GDP) to 20% **below** 2005 levels by 2010. Government projections suggest that meeting this target would reduce China's greenhouse gas emission to 10 per cent below 'business as usual', achieving a reduction of 1.5 billion tons of CO<sub>2</sub>.<sup>7</sup>

In 2006, emissions of CO<sub>2</sub> and SO<sub>2</sub> were 14.28 million and 25.89 million metric tons respectively a 1 percent and 1.6 percent increase respectively compared to 2005 data. By 2007, CO<sub>2</sub> and SO<sub>2</sub> emissions were 13.82 million and 24.68 million metric tons respectively, a fall of 3.2 percent and 4.7 percent compared to 2006 data. Data for the first half of 2008 show a similar downward trend, with CO<sub>2</sub> emissions at 6.74 million metric tons, a decrease of 2.48 percent compared to comparable data for 2007 and emissions of SO<sub>2</sub> at 12.13 million metric tons some 3.96 percent lower than first half year figures for 2007.

China is considering emissions reduction while maintaining employment as a possible 'double win'. The government can exercise the right to close down companies where productivity is low (see Box 2.2 below). In these cases, the employment loss is low in relative terms though can be significant for the regions and workers concerned. An alternative presented at the joint Beijing seminar was to use the relative change of energy price to induce enterprises to employ energy-saving technologies, which could reduce employment loss.

#### **Box 2.2 – Closures of outdated enterprises in China**

In 2007, in response to low production and outdated technology enterprises were closed and production capacity reduced as follows:

- 2018 paper mills,
- 500 chemical plants,
- 400 textile, printing and dyeing enterprises,
- 14.38 million kilowatts of small thermal power generating units,
- 52 million metric tons of cement,
- 46.59 million metric tons of iron,

<sup>7</sup> Brahic, Catherine. "China to promise cuts in greenhouse gases." NewScientist.com news service, February 14, 2007. <http://environment.newscientist.com/article.ns?id=dn11184>; Lin, Jiang; Nan Zhou, Mark Levine and David Fridley. "Achieving China's Target for Energy Intensity Reduction in 2010: An exploration of recent trends and possible future scenarios." Report #61800, December 2006, Lawrence Berkeley National Laboratory.

- 37.47 million metric tons of steel,
- 6.5 million shipping containers of flat glass.

All of the enterprises closed and reductions in production capacities took place in sectors where energy consumption was high (i.e. in the top ten energy consuming sectors). Closure therefore was expected to play a significant role in reducing emissions. In Henan Province, for example emissions have been reduced by 97 thousand tonnes (43 percent) by closing enterprises were closed and production capacity using outdated technology.

In the meantime, low cost labour remains an advantage for China. However, it is clear that China cannot rely on low cost labour in order to guarantee growth indefinitely. Upgrading sectors, upskilling the labour force (including raising awareness of green issues), and exploiting technological advancements are key elements of the shift to a low carbon economy. There is recognition in China that it needs to switch growth modes, however, there are concerns that job losses in high carbon industries will not be offset by growth in emerging sectors. However, initiatives such as the Start and Improve your Own Business (SIYB) China Programme, delivered by the Ministry of Human Resources and Social Security, now includes a 'green dimension' hence may provide a means to facilitate support emerging sectors through which some concerning the efficient management of natural resources and environmentally friendly behaviour.

One of the issues discussed at the Beijing joint seminar related to the shortages of emissions reducing technology and associated skills in the workforce in China and that skills transfer (including transfer from Europe) is necessary to ensure that such technologies can be implemented. While the low carbon economy has featured in policy debates for some time in **Europe**, its implications from skills and technology perspectives are still being developed as new markets continue to emerge. Sustainable development features strongly in the European Economic Recovery Plan and is seen by governments as a pathway out of the economic downturn.<sup>8</sup> Its importance is also recognised in the European Commission's 2020 strategy which puts innovation and green growth at the heart of its blueprint for competitiveness.<sup>9</sup>

As part of efforts to address the threat of climate change, Europe's leaders have pledged to cut carbon dioxide emissions by 20% by 2020 and source 20% more "clean" energy from renewable sources. Beyond the targets, most Member States are proposing ambitious long term plans to place Europe's economies and labour markets firmly on a low-carbon development path.

The movement towards a low carbon economy is expected to generate winners and losers in the European labour markets, with the effects contributing to competitiveness and improved productivity in some sectors though job losses and / or relocation in other sectors. In the proposed growth sectors, the movement towards a low carbon economy is expected to transform jobs and skills demand and introduce new skills and occupational profiles.

The transition to a low carbon economy will require a dramatic transformation of EU (and global) industry, especially in the transport, construction and electricity sectors, creating new goods and services, spawning new businesses, and providing millions of new jobs.

<sup>8</sup> GHK et al (2010) Skills for Green Jobs – Synthesis Report (forthcoming).

<sup>9</sup> European Commission (2010) Europe 2020: A European Strategy for smart, sustainable and inclusive growth.

There is now a widespread consensus that investment in eco-innovations, low-carbon technologies and resource efficiency will boost EU competitiveness and allow the EU to 'stay ahead of the pack'. Concerning employment, even though job losses are inevitable through structural change, new jobs will be created. Even though the total effect is still unknown, evidences are rather favourable that environmental policy and eco-innovations can promote economic growth and net job creation.

Some industries will face rising costs and a risk of declining international competitiveness. This will occur, for example, in energy intensive sectors (e.g. steel, cement, paper) where EU climate change policy leads to higher costs of production or where non-EU countries with relatively lower environmental standards allow for lower producer costs.

## 2.2 ...and the ageing society

There are similarities in the demographic challenges faced by **China and the EU**. In both cases the population is ageing, with ageing even more advanced in China than the EU (see figures 2.1 and 2.2).

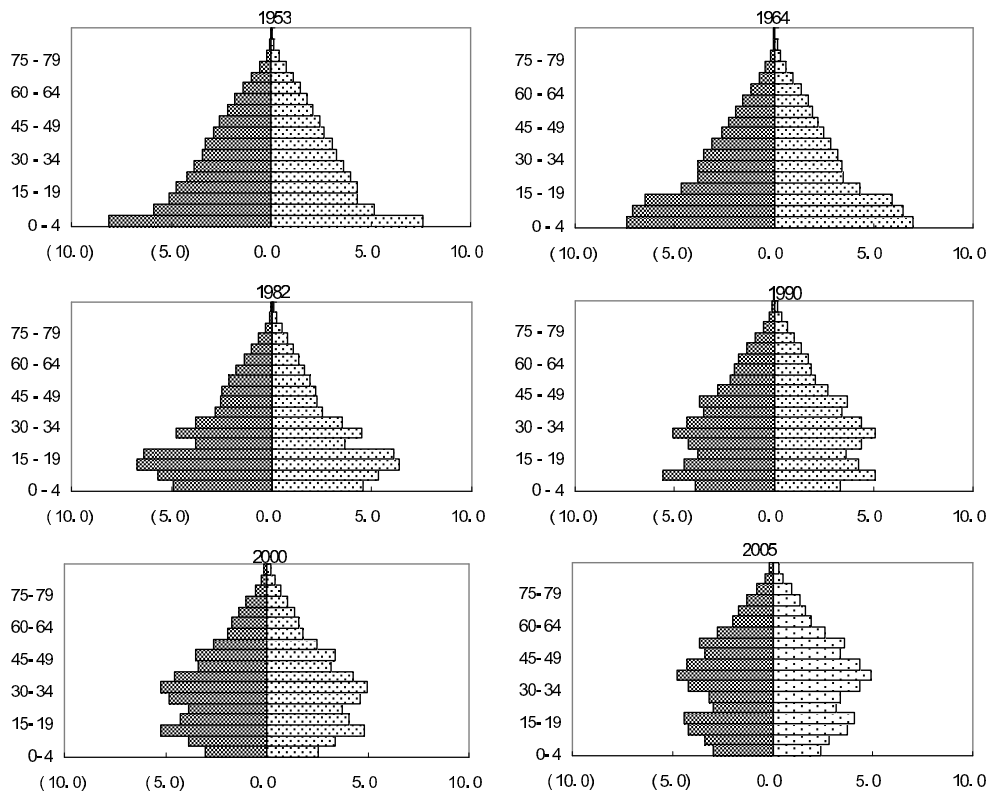
**China** has witnessed rapid demographic transition in the past three decades assisted by the one child policy. It is widely accepted that the total fertility rate (TFR) in China is below 1.8. However, some demographers believe that the TFR in China is below 1.5. In addition, China has already experienced a significant decline in death rates in the 1960s and 1970s. With increasing average life expectancy, the population has been and continues to age at a rapid speed. The significant decline in fertility rates means that China has already made the transition into being an ageing society.

By 2007 the population aged 65 and above accounted for 8.1 per cent of total population in China<sup>10</sup>. This rapid demographic shift means that China (a grey but not a rich country) is faced with the challenge of supporting its growing elderly population which is growing faster in rural rather than urban areas.

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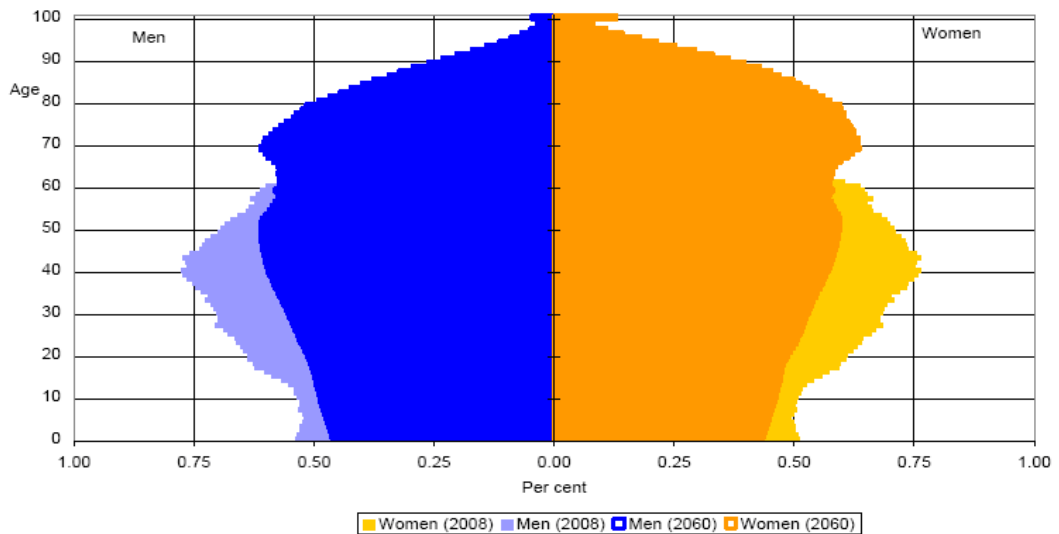
<sup>10</sup> World Bank (2008), World Development Indicators Database.

**Figure 2.1: Population change in China (1953 – 2005)**



Note: The left row is male and the right row is female in the figure for each year. The unit of measurement is percent. Source: Fan, Jingjing (ed.) (1995), *China's Population Structure by Age and Sex*, China Population Publishing House; National Bureau of Statistics (2007), *Tabulation on the 2005 1% Sample Survey of the People's Republic of China*, China Statistics Press; National Bureau of Statistics (2002).

**Figure 2.2: Population change EU27 – 2008 and 2060**



Source: Eurostat, EUROPOP 2008 convergence scenario.

In China, demographic change has brought to the fore a number of social issues:

- The challenge of supporting the growing number of the elderly people, who are experiencing increased poverty, especially in rural areas. The situation is exacerbated by the rapid economic transition as in the transformation to the market economy restructuring and labour market dislocation have brought poverty to old people in urban and rural areas alike. Despite the efforts by the Chinese government to establish a rural pension system, family members typically support old people in rural China.
- Addressing disadvantages faced by older people in the labour market, who are less competitive compared to young people. In an economy dominated by labour intensive industries, older people cannot rely on employment as a way out of poverty. Older people are also less educated, compared to the younger generations, due to the policies pursued during the Cultural Revolution.
- Addressing the issue of low labour market participation by older people. Data from 2005 indicate that only 43.9 per cent of workers in the age group 51-60 were working, this dropped to 4.1 per cent for the 60 plus age group.<sup>11</sup> Older people with pensions in urban areas tend to quit the labour market as pensions payments are described as pretty generous.

Having grown substantially in the second half of the twentieth century, the total population of **the EU** will rise from 456.8 million in 2005 to a maximum of 470.1 million in 2025, when it will start to decline. It is expected to fall to 449.8 million by 2050. The expected growth up to 2025 will largely be based on net migration, as total deaths will outweigh total births in the EU from 2010. However, even the immigration effect will be insufficient to outweigh the natural decline in the population from 2030 if current projections turn out to be realistic.

This will bring a significant shift in the balance between the active and the retired populations, impacting significantly on the labour market. Increasing life expectancy – as well as impacting on pensions - also means that in 15-20 years' time, these cohorts will begin to rely heavily on the health and long-term social care systems<sup>12</sup>. In the context of a declining and ageing population supplemented with net immigration, the key policy challenges will be to ensure that existing workers improve their skills to ensure productivity growth and that people in the 50+ age groups remain in work in higher numbers. Demographic changes in the EU will also mean that economic growth will no longer depend on increased number of people entering the labour market. As the working age population (using current definitions) declines, productivity gains provide the only potential source of future economic growth.

Demographic trends comprise the complex interplay of long term economic, social, cultural and political factors. In both China and the European Union, demographic change means that the labour supply in the future will contract. While migration plays a key role in addressing labour shortages both now and in the future, it alone cannot address the anticipated shortfalls. Problems are evident in both cases as follows:

<sup>11</sup> Data from China Urban Labor Survey (CULS2) in 2005. The survey was conducted by the Institute of Population and Labor Economics, Chinese Academy of Social Sciences in 5 Chinese cities (Shenyang, Wuhan, Shanghai, Fuzhou, and Xian) and seven other cities in 2005.

<sup>12</sup> See *The 2009 Ageing Report: economic and budgetary projections for the EU-27 Member States (2008-2060)* for further information, for example, on demographic change, labour market participation rates, pension expenditure (and the pension systems in individual Member States), healthcare expenditure and long term care. See: [http://ec.europa.eu/economy\\_finance/publications/publication14992\\_en.pdf](http://ec.europa.eu/economy_finance/publications/publication14992_en.pdf) - checked 08/06-10

In **China**, demographic change and the diminishing labour surplus in rural areas means that the ‘unlimited labour supply’ that has facilitated economic expansion is vanishing, hence the Lewisian turning point<sup>13</sup> is bearing down upon the Chinese economy. Labour shortages emerged as early as in 2003, especially in the Pearl River Delta region and the Yangtze River Delta region. As a result of emerging labour shortages, the average wage in the urban areas increased dramatically. The Lewisian turning point has important implications for labour market policies in that the conditions are ripe for addressing a host of economic and social issues including income inequality and poverty and limited workers’ rights. It is also important to recall that large numbers of rural migrant workers entering the urban labour markets have done so outside the government labour market planning system, prevailing hitherto in the labour market matching in China. In addressing such issues the Chinese government is in an ideal position to pursue its economic growth path as well as its aim to develop a harmonious society.

In **the EU**, as stated above, expected population growth by 2025 will largely be based on net migration as total deaths will outweigh total births in the EU from 2010. The need to increase the skills level of the population and maximise the contribution of older workers and, in the European context, women are shared aims in responding to the fall in the working age population.

Concerning young people, older workers and women, there appears to be a tension between the short term effects of the economic crisis and the long term challenge of maximising labour supply: these groups are vulnerable to job losses in economic downturns<sup>14</sup>, though need to be appropriately engaged to contribute to the labour force for the future as those currently outside the labour market or who are poorly attached may struggle in the future.<sup>15</sup> For example, young people, including those with high level skills, are currently struggling to find work (see section 3 and case study 4, Part II).

### 2.3 Facilitating economic and structural change

Economic structural change features as a mid/long run aim in both China and the EU. Major actions aim to create and stabilise new sectors and new jobs and understand future skills needs. In **China**, for example, various aspects of structural change were identified as necessary to move forward as follows:

- Research and development in strategically important fields;
- Early phase manufacturing (e.g. planning and designing, to transform science into productivity);
- A new focus on digital products;
- Service sector development; and
- Green occupations.

Assuming these changes can be realised, new occupations are expected to emerge that should play an important role in the Chinese economy by reconciling the conflict of frictional unemployment. Indeed, a further dimension of anticipated change is the emergence of

<sup>13</sup> Cai in *Approaching a Triumphant Span: How Far Is China Towards its Lewisian Turning Point?* (2008) described the Lewisian turning point as the ‘point in time when the long-existing surplus labour is exhausted’ stating that ‘its arrival is essentially the result of successful economic growth’. See: [http://www.wider.unu.edu/publications/working-papers/research-papers/2008/en\\_GB/rp2008-09/](http://www.wider.unu.edu/publications/working-papers/research-papers/2008/en_GB/rp2008-09/)

<sup>14</sup> For example, the Chinese Urban Labour Survey (CULS1) showed that women’s participation rates fell by 10.6 per cent between 1996 and 2001 compared to only 6.9 percent for males during the same period.

<sup>15</sup> European Commission (2010) *Europe 2020: A European Strategy for smart, sustainable and inclusive growth*.

China as a key destination for mobile workers with key skills of global significance (e.g. technology and IT skills).

In **the EU**, the *Europe 2020 strategy* outlines a vision for Europe's social market economy in the 21st century. It focuses on demonstrating how the EU can emerge from the crisis stronger and how it can evolve into a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion (Box 2.3 identifies the strategy's priorities and targets).

### Box 2.3 – EU 2020 strategy priorities

The new 2020 strategy identifies three mutually reinforcing priorities:

- Smart growth: developing an economy based on knowledge and innovation.
- Sustainable growth: promoting a more resource efficient, greener and more competitive economy.
- Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.

Headline targets, linked to the above priorities have been proposed as follows:

- At least 75 percent of the population aged 20-64 should be employed (which compares the following current figures: 69 percent overall, 76 percent for men, 63 percent for women and only 46 per cent for older workers, i.e. those aged 55-64).
- 3% of the EU's GDP should be invested in R&D, consistent with the current rate, though the new strategy will focus on impacts, not inputs as has been the case to date.
- The "20/20/20" climate/energy targets should be met through a 20 percent decrease in greenhouse gas emissions compared to 1990 levels, an increase in the share of renewable in energy consumption (to 20 percent) and a 20 percent increase in energy efficiency.
- The share of early school leavers should be under 10%, down from the current figure of 15 percent, and at least 40% of the 30-34 age cohort with a tertiary degree by 2020 compared to 31 percent at present.
- 20 million less people should be at risk of poverty, reducing the number of people living in poverty by one quarter on current figures.

Different solutions are required to respond to these challenges and provide a sustainable path to future development, including:

- Measures to retain older workers in the labour force, as the only growth in the labour force is expected to be in the 50 plus age group.<sup>16</sup>
- Measures to shorten the transition process from education to employment to facilitate the labour market entry for young people (see section 4 and case study 4, Part II for further information).

To understand future skills needs and help develop education and training solutions, various quantitative forecasting and qualitative foresight exercises have been conducted to establish future skills needs both at the EU level and in individual Member States. At the EU level these include Cedefop's 2010 forecast<sup>17</sup> and the comprehensive sectoral studies<sup>18</sup> commissioned by the European Commission to identify emerging competences and future skills needs.

<sup>16</sup> Expert Group on New Skills for New Jobs (2010) *New Skills for New Jobs: Action Now*.

<sup>17</sup> Available at <http://www.cedefop.europa.eu/EN/publications/15275.aspx>

<sup>18</sup> Available at <http://ec.europa.eu/social/main.jsp?catId=784&langId=en>

### 3 NEW SKILLS FOR NEW JOBS: CREATING AN ADAPTABLE WORKFORCE

Faced with the short and long term challenges in both China and the EU, the development of a skilled and adaptable workforce is considered to be a crucial policy response in moving towards harmonious and sustainable social and economic development. In the EU, for example, the EU2020 strategy (see Box 2.3 in chapter 2) links to the post-crisis global response outlined in the G20 skills and training strategy which stresses that education, life-long learning, job training and skills-development should be prioritised and strongly feature in growth strategies.<sup>19</sup>

This section therefore examines skills and starts by highlighting the need to upskill the workforce. It then goes on to examine the difficulties that young people are facing in accessing the labour market. The increasing importance of soft skills and lifelong learning as a means for developing a flexible and adaptable workforce are also discussed. The section then moves on to: skills matching; the role of the informal sector in China's exit from the crisis; and the strength of the social dialogue in Europe.

#### 3.1 A common understanding of the need to upskill the workforce

Both **China and the EU** share a common aim to upskill the labour force and recognise that the majority of those that need upskilling are already in work. It is a challenging task to ensure that individuals have access to and actually take up training and that the relevant stakeholders understand the need to provide accessible training to existing workers.

Migrants, older workers and women (for this latter group, more so in the European context) will have a key role to play in the labour market of the future if economic growth is expected to continue. Upskilling and reskilling migrants both in **China and the EU** will allow them to move away from the informal economy or in the European context the 'dangerous, dull and dirty' jobs that are available to many of them.

In **China**, skills development is seen as a necessary approach to improve productivity, required to ensure advantage in labour intensive sectors if productivity is not parallel to the growth in labour costs. China's fast economic growth so far has focussed on a decrease in the importance of the primary sector and increases in the second and tertiary sectors, growth in export and trade and foreign direct investment (stimulated by available labour resources, huge market scale, fast economic growth and stable political environment).

Upskilling to increase productivity is also seen as an important solution in the context of diminishing labour market participation rates in urban areas. The fall in urban labour market participation rates arises mainly from:

- Adjustments in the participation rate in the transition from planned to market economy, where the institutional arrangements of the planned economy (such as the household registration system of *hukou* or the monopoly purchase and sale of agricultural products of *tonggou tongxiao*) are transformed to meet the needs of market economy.

<sup>19</sup> See [www.g20.org](http://www.g20.org) for more information.



- Radical economic restructuring of state-owned enterprises which has led to the abandonment of the 'iron-rice-bowl'<sup>20</sup>, lay-offs and unemployment and discouraged workers in the urban areas.
- Improvements in the social protection system in urban areas, including a minimum living standard guarantee system of *dibao* which has created incentives not to actively participate in the labour market.

As well in China, the government is turning to Chinese nationals, educated, living and working overseas to return to China to establish businesses and fill skills gaps as their knowledge of the language and culture allows them to integrate into Chinese society more readily.

Within Europe, the **EU** policy initiative flexicurity<sup>21</sup> provides a means to afford labour market flexibility, while retaining security and provides an appropriate context for re/upskilling the workforce to facilitate increased productivity and ensuring match between current and future skills needs.

In Europe, increasing the contribution of women and the over 50s to the labour force has been a target since the Lisbon strategy was introduced in 2000. Based on 2000 figures by 2007 there was a 9.8% increase in the female employment rate and a 34% increase in the employment rate among the 55 - 64 age group. The 2009 Ageing Report<sup>22</sup> estimates that the overall employment rate needs to increase from 70.6% in 2007 to 74.1% by 2060 with almost all of the change projected to materialise by 2020. The employment rate for older workers is expected to rise from 44.9% in 2007 to 54.5% in 2020 and to 59.8% by 2060. While targets are identified for the participation of youth, older workers, low skilled workers and legal migrants in the EU2020 Strategy, their contributions are expected to raise the employment rate to 75 percent by 2020.

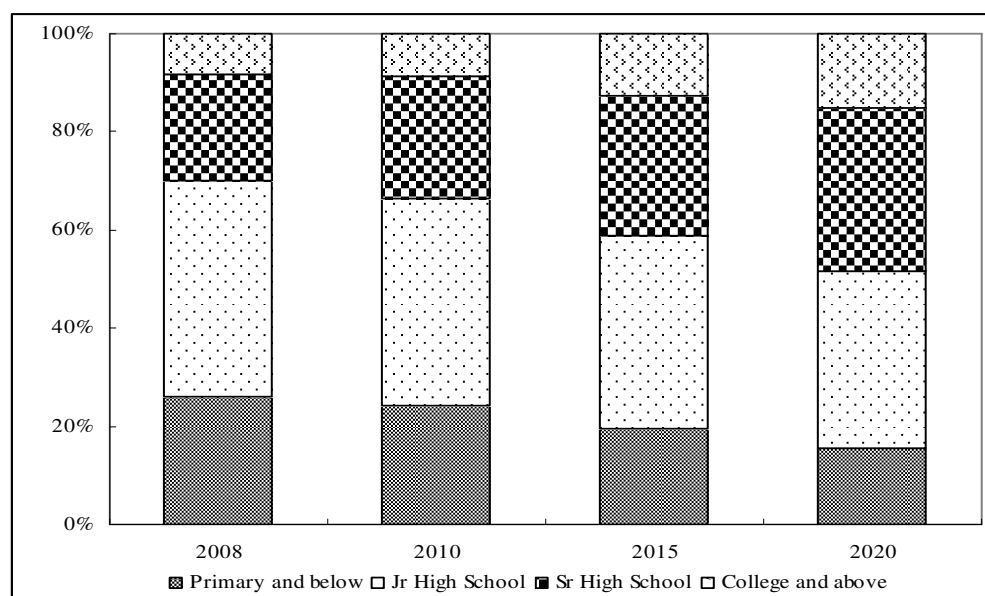
In **China**, the economic shocks experienced in the late 1990s led to the government initiating an active pro-employment policy, consisting of expansionary fiscal policy to stimulate macro-economy, programmes to help unemployed and laid-off workers to re-enter labour market through job service, training, provision of public jobs, as well as the establishment of a social security system and social protection network.

Postponing the retirement age and investing in training for older people were identified as possible solutions to labour shortages and ageing in China. As shown in Figure 3.1, the proportion of population educated to primary level or below is expected to decline, while the college level qualifications or above will increase. Many people aged 40 plus are educated at primary level or below. A key challenge for China for the future is how to utilise the potential of older people in the labour force with practical work experience though low level qualifications.

<sup>20</sup> The employment in state-owned enterprises was well-protected in employment terms and welfare conditions. The situation was compared in China to holding an iron rice bowl.

<sup>21</sup> For more information on flexicurity see case study 5, Part II.

<sup>22</sup> European Commission, Ageing Report (2009): Economic and budgetary projections for the EU-27 Member States (2008-2060), EUROPEAN ECONOMY 2, 2009.

**Figure 3.1 - Human Capital Accumulation up to 2020 in China**

Source: Institute of Population and Labour Economics, *The Report on Recent Trend of Employment and Social Securities*, mimeo, 2007.

### 3.2 No experience, no job: getting a foothold in the labour market

Young people, especially current graduates, are facing difficulties finding jobs as labour demand is for workers with lower level skills and the thresholds are higher for young people entering the labour market as more younger people are accessing higher education (see Box 3.1 below for further information about the expansion of higher education and employment opportunities for **Chinese** graduates). Two common issues were identified as contributory factors in graduates' struggling to enter the labour market: employability and a lack of work experience. Concerning employability in China, studies by Gallop (2007) and McKinsey (2005) highlighted that university graduates met only 70% of employers' needs and that only 10% of graduates meet the technical and skills requirements of foreign companies respectively. In **the EU**, graduates' lack of work experience is also a contributory factor in them remaining outside the labour market.

#### Box 3.1 – Expansion of higher education and employment opportunities for Chinese graduates

Participation in higher education has seen a massive increase in China between 1998 and 2009 with participation increasing more than five-fold. In 1998 some 1.08 million young people entered higher education compared to 6.08 million in 2009. In 1998 some 0.83 million young people graduated from higher education. By 2002, the number of graduates started to increase: some 1.34 million graduated in 2002 and 6.1 million graduated in 2009.

The unemployment situation for graduates is less favourable compared to those for people with lower levels of education. Estimates from a 1 per cent population sampling survey<sup>23</sup> indicate that unemployment rates for persons with junior high school, senior high school, and college education are 7.8 per cent, 13.1per cent, and 13 per cent respectively. Another survey conducted by Peking University found that in 2006 only around half of college graduates found jobs when they graduated while 27 per cent could not find jobs in their chosen field of study. Considering the scale of the college graduate population, ensuring that graduates are actively engaged in appropriate jobs is a key challenge for the Chinese labour market.

<sup>23</sup> There is no recent national representative survey on employment for college graduates compared to other groups of people.

In both **China and the EU** employers have the same skills requirements for potential workers:

- Experience;
- Soft and transferable skills and competences;
- Technical skills.

There is a common challenge in reforming education systems in order to make them more responsive to employers' needs. In the context of the dramatic expansion of higher education in China, the quality of education delivered has not always been guaranteed. Discussions at the Beijing joint seminar highlighted that universities should work with students to help develop their employability, while soft skills should be developed at earlier stages. Strengthening the links between institutions, government, public and private employment services and enterprises was highlighted as a means through which measures to improve graduates' skills and better match them to employers' needs can be implemented.

As mentioned above, soft skills are particularly important as they equip individuals with the means to develop their vocational skills. Linkages between education institutions and enterprises are key to ensuring that appropriate soft skills are being provided through education and training providers while enterprises are engaged to provide appropriate work experience. Responsibilities for skills development rest between education and training providers, employers and individuals: each has their own roles to play. The recent report from the New Skills for New Jobs expert group identifies the 'learning outcomes' approach as a means through which employers can be actively involved in ensuring that education is linked into labour market needs (see Box 3.2 for further information).<sup>24</sup>

**Box 3.2 - 'Learning outcomes': a new way to approach qualifications**

Qualifications have traditionally been defined in terms of (a) the time spent by an individual to complete them; and (b) the level required to enter the programme (for instance a tertiary education programme requires completion of secondary education and has duration of at least 2 years).

Qualifications can also be developed in terms of outcomes: the European Qualifications Framework (EQF) and European Tools such as the European Credit Transfer System (ECTS), the European Credit Transfer System for Vocational Education and Training (ECVET), Europass, help to define courses, programmes and qualifications in terms of learning outcomes i.e. what an individual knows, is able to do and / or understands after having completed a learning process.

Applying the learning outcomes approach to define, for example, training standards not only broadens the scope of 'recognised knowledge', but also increases the transparency of national systems and makes it easier to judge what is offered by education and training systems and institutions. Standards that clearly state what is expected from the learner at the end of the process, but do not specify a single route to this goal, also offer individuals at different ages and life situations a greater range of options, and make education and training more flexible.

*Source:* New Skills for New Jobs: Action Now (2010), p. 23.

<sup>24</sup> Expert Group on New Skills for New Jobs (2010) New Skills for New Jobs: Action Now.

### 3.3 Soft skills and lifelong learning: creating an adaptable labour force

Soft skills are not simply an issue for graduates. Soft skills are recognised in **China and the EU** as a key element of an adaptable workforce where predefined technical knowledge becomes somewhat less important and the skills to use ones knowledge, adapt and learn new competences (how to learn, communicate and interact and respond to changing environments) will become increasingly important. From the **Chinese** perspective, manufacturers want to make the shift from delivering ‘quantity’ to delivering ‘quality’ products and upskilling, including the development of soft skills, is considered key element of this change process.

In **the EU** upskilling is explicitly linked to the flexicurity agenda with a key tenant of adaptability being a fundamental shift in the working age population’s attitude towards lifelong learning. Lifelong learning is being used in EU as a means to engage workers in learning and upgrading their skills through the use of distance learning, flexible courses and delivery methods. It will become increasingly significant in ensuring that workers are both flexible and adaptable in how they respond to changes in labour demand.

While lifelong learning is a shared responsibility between education and training providers, employers and individuals, it is important that individuals actively develop their skills and remain employable (see Box 3.3 below). There is also a key role for employers in learning to manage employees with high level skills and ensuring that learning and skills development is effectively harnessed in the workplace. While understanding of the importance of lifelong learning is shared in China and the EU, its take up to date is limited for different reasons (see section 3.5 below).

#### **Box 3.3 – Responsibilities for active lifelong learning**

Upgrading, adapting and widening the skills portfolio of individuals to create and fill the jobs of tomorrow is one of the greatest challenges facing Europe today. Everyone needs to ‘step up’ and be more ambitious for their futures – individuals, ‘private and public employers’, the education sector and governments at all levels.

Working lives for individuals should be an active and continuing process of skills development, where there are high stakes to keep up with pace of change and to be able to move easily from one job to another. Government, employers and individuals should see training and upskilling as an investment in a sustainable future rather than a cost to be minimised. People’s skills are essential to social and economic success.

*Source:* New Skills for New Jobs: Action Now (2010), pp 8-9.

### 3.4 Exit routes from the crisis: what role for extending working lives and the informal sector?

Extending working lives as a means to tackle labour shortages was identified as a possible solution to skill shortage problems in the future. However, at present both in **China and in Europe** older people are less likely to have formal qualifications, though this is not to say that they do not have experience pertinent to the labour market. The average older worker in **China** only has six years of education, whereas an average 25 year old has 10 years of education. In China, active employment policies and legislation have played an important role in promoting employment since the late 1990s and are seen as potentially useful to males aged 50 plus and women aged 40 plus who are able and willing to work.

Compared to the EU, China has a more serious problem with informal employment. There are two dimensions to the problem: its scale and the relative importance of informal

employment in China's emergence from the crisis. The China Urban Labour Survey (CULS) from 2005 shows that 32.6% of local workers and 84.3% of migrant workers are employed in the informal sector.

The informal sector in China has played a significant role in its exit from the crisis: the sector has absorbed redundant labour. While it concerns precarious jobs, to date informal employment has acted as a buffer between employment and unemployment initially during the reform of state owned enterprises to minimise unemployment and alleviate poverty and social hardship. In the long run the sector is unstable as informal workers have no social protection, though the phenomenon of informal employment is expected to continue for some time yet and provides employment for particular groups, for example the urban elderly without pensions. China's economic reform partly depends on the economic function of informal sector. The suggestion emerging from the discussions at the Beijing joint seminar was to "keep the informal sector, while improving the social security cover for workers and access to training within this sector".

### 3.5 Understanding the benefits of skills development and reintegrating the low skilled

While low participation in training is common for China and the EU, the rationale for such participation differs. The take up of lifelong learning in **the EU** is still low in some Member States and one reason for this is the lack of awareness of the benefits of upskilling: individuals and employers need to understand the value of skills and that prosperity depends on raising skills levels.<sup>25</sup> In China, the idea that China becomes a lifelong learning society was proposed at the 16<sup>th</sup> National Congress of the Communist Party and this proposal envisaged lifelong learning as a means through which older people could improve their productive capacity.

However, vocational education and training take-up in **China** is low because individuals and employers do not always know who is responsible for such training, and how and where training should take place which appears somewhat at odds with the proposals to move towards being a lifelong learning society. This is a particular issue for migrants who have nine-year basic quality schooling. If upskilling is to occur establishing who is responsible for supporting this process is important: companies perceive training as a high cost with little return, given the mobility of migrants and are therefore reluctant to offer training. Hence incentives may be required to motivate individuals and employers to embrace the advantages of training.

In **the EU**, the crisis has highlighted that low skilled workers are often the first to drop out of labour market and among the last to reintegrate. The re-entry of low skilled workers presents a real challenge. In contrast, the labour supply elasticity in **China** of low-skilled labour is rather high. The reason, on the one hand, is because low-skilled workers (mostly migrant workers) have a low fallback position and are willing to accept low salary offers (in the informal sector). On the other hand, from the labour demand side, many new jobs are being created through the 4 trillion yuan stimulus package, mostly in the service sector, domestic manufacturing, infrastructure and construction, which can absorb labour. If export demand increases again migrant workers will return to the coastal areas. While labour shortages could drive up labour costs, the gap between supply and demand could be addressed through skills development.

<sup>25</sup> Expert Group on New Skills for New Jobs (2010) New Skills for New Jobs: Action Now.

**Box 3.4 – Incentives for workers, employers and training institutions**

Incentives and services for individuals:

- Develop and implement cost-efficient approaches to identify and validate prior learning and practical experience
- Make greater use and better evaluate the impact of learning accounts / vouchers, particularly for low skilled employees
- Prioritise guidance and counselling and motivational support to individuals and improve the quality of these services. Develop public employment services profiling systems including internet and skills based matching tools.

Incentives for employers:

- Enhance skills development policies
- Explore the benefits of treating capital investments and investments in training on an equal basis
- Provide incentives for companies to encourage skills upgrading in their suppliers
- Communicate the benefits of a skilled, adaptable workforce and on how to improve skills utilisation in the workplace
- Support collaboration among employers to share information and good practices in skills development and use
- Provide better support for SMEs in (a) leadership / strategic planning and (b) in training for effective skill development.

For education and training institutions:

- Provide the right incentives to intensify cooperation between the providers of education, training and businesses.

*Source:* New Skills for New Jobs: Action Now (2010).

### 3.6 Strength of social dialogue

European social partners play an important role in determining employment, wage, working time and working conditions. As the social dialogue is well established, there may be opportunities for China to learn from Europe to intensify the social partners' role in the market economy, so that effective negotiation and representation of different groups can positively affect income distribution and social protection.

There is evidence of recent developments concerning social protection under the auspices of the 'harmonious society', introduced recently by the Chinese government. Box 3.5 below identifies that key elements of the harmonious society, which was discussed at the 17<sup>th</sup> National Party Congress in 2007, includes improving labour market regulation and using increased employment as a means through which social development can be achieved.

**Box 3.5 - The Party's Manifesto on Employment**

[The aim is] to implement a development strategy that promotes job creation and encourage entrepreneurship to create more employment opportunities. Employment is vital to people's livelihood. We will continue to follow a proactive employment policy, strengthen government guidance, improve the market mechanism for employment, create more jobs and improve the employment structure. We will improve policies to encourage people to start businesses or find jobs on their own and promote a healthy attitude toward employment so that more people in the labour force will launch their own businesses. We will improve vocational education and training for the labour force and intensify pre-employment training for surplus labour transferred from rural areas. We will establish a unified, standardized labour market and a mechanism that ensures equal employment opportunities for both urban and rural residents. We will improve employment assistance to the needy and make it a priority to help zero-employment families to have job opportunities. We will do our best to help college graduates find jobs. We will regulate and coordinate labour relations, improve and implement government policies concerning rural migrant workers in cities, and protect the rights and interests of every worker in accordance with the law.

Source: Hu Jintao's speech at the 17th National Congress of CPC, 2007.

The *Employment Promotion Law*, adopted in August 2007 and implemented from 1 January 2008 provides a legal tool for implementing active employment policies, the promotion of employment and the coordination between economic development and employment in order to achieve harmony and societal stability. The Law includes, for example, regulations on fair employment, employment service and supervision, occupational education and training, employment assistance, monitoring inspection and legal liability. Two elements of these developments that are consistent with the social dialogue processes in Europe are legislation to protect workers' rights and to provide 'decent work', akin to the quality jobs dimension pursued through the Lisbon Strategy.

While one of the discussants from China highlighted the need for good-quality vocational training, the EU has good examples of effective vocational training delivered through apprenticeships in, for example Germany (see case study 4, Part II for further information). These systems already demonstrate the value in employers working with education and training institutions and social partners to deliver valued training to young people and adults.

## 4 CONCLUSIONS

This section provides some conclusions on the common challenges that have emerged during the course of the study. It starts by identifying the common challenges, then moves onto highlighting the fields of activity that have a particular significance and value, which are then in turn explored through case studies presented in Part II.

### 4.1 We are in the same boat (同舟共济)

China and EU share similar challenges both in the short and long term. The current crisis has affected both China and the EU, though the degree and timing of impact are different. Young people (at all education levels), the low skilled, migrant workers and older workers have been and remain vulnerable. Such impacts are not only related to the short-term impacts from the current economic crisis, but are also longer-term structural changes that need to be addressed in the post-crisis development.

Skills development features strongly as a means through which the two key challenges of demographic change and the shift to a low carbon economy will be realised. Mismatch is an issue for university graduates in China and the EU, with graduates failing to enter the respective labour markets at levels commensurate with their skills. Employability, work experience and soft skills and extending working lives are also key areas of concern.

There is huge regional / country difference in the economic setup and performance within China and the EU respectively, which requires flexible policy making according to the different regional and country situations.

### 4.2 The challenges explored

Research and exchanges during the study have identified the following *fields of activity* that had a particular significance and value for further exploration:

- Skill development and matching;
- Skill anticipation; and
- Social protection.

These fields of activity have been further explored through several case studies undertaken by the European Research Team, in Stage 2 of the study, the results of which are presented in Part II of this report.

#### 4.2.1 Skill development and matching

The need to upskill the labour force is required to facilitate a shift from low to medium level skills. Upskilling and facilitating the acquisition of soft skills, through lifelong learning and / or continuing vocational training is an important aim that is expected to have an effect on the adaptability of the labour force to respond to structural change. The benefits of such investment can: facilitate the shift towards a low carbon economy; provide a means to minimise / avoid skills polarisation and a means to equip older workers and migrant workers with the necessary soft and basic skills that will allow them to remain in the labour market. In this context, three main areas explored in the case studies in Part II are briefly described below.



**1) Upskilling (and reskilling) measures to address the long term challenges of demography and a shift towards a low carbon society**

In the context of the demographic challenge of ageing societies, the health and social care sector is increasing in importance (as the numbers of older people is increasing), and there is an important need to ensure that its workforce is able to respond to the ensuing challenges (see **Case study 1**).

Skills initiatives to assist the transition to a green economy, including partnerships between different stakeholders to facilitate the acquisition and development of requisite skills (see **Case study 2**).

**2) Facilitating matching in the labour market in the face of globalisation**

The measures of skills matching are developed to facilitate the transition of workers at all skills levels, on the labour market through vocational and academic pathways including soft skills and competences and lifelong learning. This includes:

For university graduates – curricula reform and reinforcing the connection between education and training institutes, employers and private/public employment services (this is further demonstrated in **Case study 3**).

Apprenticeships as a route to accumulating experience and enter labour market (this is explored in **Case study 3**).

**4.2.2 Skill anticipation**

One of the key elements of the capacity for skill anticipation in the future is the availability of good-quality comprehensive baseline data on the labour market situation. **Case study 4** highlights the experiences and developments in the EU's statistical office, Eurostat, to provide such statistics across the 27 EU Member States.

**4.2.3 Providing social protection to atypical workers**

As mentioned in Chapter 3, the Chinese government aims to construct a harmonious society which is comparable to the European social model. Improving labour market regulation is one elements of the move towards a harmonious society. Box 3.5 in the previous chapter identifies that increasing employment is one of the countermeasures for social development. In practice, a series of laws relating to labour market has been enacted or amended in order to form a harmonious labour market and stable labour relations. By enforcing the firms to protection for workers' rights, China is going to encourage environment for decent work.

Such issues in the European context are further explored in **Case study 5**, including the role of flexicurity, the role of social partners and promoting the quality of jobs.

## **PART II – CASE STUDIES OF EUROPEAN PRACTICE**

# 1 CASE STUDY 1: UPSKILLING (AND RESKILLING) TO ADDRESS THE LONG TERM CHALLENGES OF DEMOGRAPHY – HEALTH AND SOCIAL SERVICES SECTOR

Demographic change is one of the key factors driving demand for health and social care, along with advances in medical science, which have extended life expectancy significantly. Also important is an increasing trend towards the ‘deinstitutionalisation’ of care – away from the hospital setting into the community<sup>26</sup>. These developments are partly linked to the increasing interaction between the health and social care sectors, requiring increasing co-operation between institutions responsible for hospitals and those who provide care in the community.

While the ageing population is expected to place increased demands on the health and social care sector, the sector itself is facing an ageing workforce problem: in 2006 almost three fifths (57 per cent) of health and social services workers in the EU were aged over 40.<sup>27</sup> The share of young workers has decreased markedly since 2000, while the share of workers aged 50 plus has increased. This means that the health and social care sector not only has to accommodate the demands of an ageing population, but it also has to do so with an ageing workforce.

The aim of this case study is to provide an overview of the health and social services sector in Europe and how it is expected to adapt in the future. The case study briefly introduces the methodology that underpinned this foresight study as well as highlighting its key findings. This overview is complemented by a discussion of the role of migrant sector in the sector.

## 1.1 The foresight methodology for the sector’s future

DG EMPL commissioned 19 sectoral studies focusing on sectors sensitive to restructuring using a common foresight methodology (see Box 1.1 below). Expert panels, comprising representatives from the sector, social partner organisations, academics and experts in education and education and training systems were involved in the studies. They discussed the emerging findings, the implications for the sector and associated recommendations.

The resulting reports were taken forward in a transversal study that summarised the key findings.<sup>28</sup> The sector studies highlighted the increasing polarisation in the demand for skills and competencies. While the concepts of excellence and competitiveness drive the demand for high skilled professionals some sectors continue to need workers with low level skills. The transversal report also identifies that off-shoring production activities is expected to lower the number of skilled jobs (e.g. crafts trades) in Europe though high skilled jobs will increase, linked to specialisation in production. Traditional occupational profiles are expected to evolve taking into account new combinations of skills and competencies.

A key message emerging from this report is a need for continuous up skilling of the labour force in light of demographic change and to adapt to change linked to internationalisation, specialisation, rising climate concerns, ICT and new technological possibilities.

<sup>26</sup> European Foundation (2006): Employment in social care in the European Union; <http://www.eurofound.europa.eu/pubdocs/2006/50/en/1/ef0650en.pdf>

<sup>27</sup> For further information <http://ec.europa.eu/social/main.jsp?langId=en&catId=782&newsId=583&furtherNews=yes>

<sup>28</sup> Oxford Research, on behalf of DG EMPL (2010) Transversal Analysis on the Evolution of Skills Needs in 19 Economic Sectors

**Box 1.1: Foresight methodology: key steps**

The European cross-sector foresight methodology included the following steps:

- Step 1. Identification of economic activities
- Step 2. Main economic and employment trends and structures
- Step 3. Identification of drivers of change
- Step 4. 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 (validating, complementing, finalising)

**1.2 The health and social services sector in the EU: key skills needs**

In 2006 more than 20 million workers were employed in the sector in 2006.<sup>29</sup> By Quarter 1, 2009 more than 21.5 million people were employed in the human health and social work activities sector (Eurostat data).

The sector is dominated by women who account for almost four fifths of the total workforce. The sector's workforce tends to have medium / high level skills with 40 per cent of the workforce having high level skills (some 13 per cent higher than the workforce average). However, the sector includes workers in lower skilled jobs, predominantly linked to social care. Employment forecasts indicate growth in the sector at 0.3 per cent per annum between 2010 and 2020.<sup>30</sup>

The age profile of the sector is orientated towards older age groups: as well as the 43 per cent of the work force aged under 40, some 30 per cent of workers are aged 40-49 and 27 per cent are aged 50 plus. More than one quarter of EU workers in the sector are employed in personal care and related occupations: this occupation accounts for 27 per cent of all healthcare workers in EU-15 though only 12 per cent in EU12, where the dominant occupation is nursing and midwifery professionals (23 per cent compared with 16 per cent in EU-15 and the EU as a whole). The differences here, in part, can be explained by the importance of informal care, delivered by family, friends and voluntary organisations.

Following analysis of the sector in the present day and the development of scenarios (and the associated implications for employment) Box 1.2 below provides an overview of the skills and knowledge needed in the future. There is a strong emphasis on the competences required to perform a job, which builds on the technical and vocational knowledge that allows individuals to access the sector. As the sector evolves through the introduction of

<sup>29</sup> TNO, SEOR and ZSI on behalf of DG EMPL (2009) Investing in the Future of Jobs and Skills: scenarios, implications and options in anticipation of future skills and knowledge, Sector Report – Health and Social Services

<sup>30</sup> Cedefop (2010) Skills supply and demand in Europe: medium term forecast up to 2020.

new technologies, the need for workers to continuously update their skills and working practices will only increase.

**Box 1.2: Overview of future skills and knowledge needed in the sector**

**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 skills**

Planning; stress and time management; flexibility; multi-tasking

**Management skills**

Strategic and visionary; coaching and team building; change management; project management; process optimising; quality management; people skills crucial for collegiate management style

**Entrepreneurial skills**

Supplier and customer relationship / understanding; business understanding / development; trend setting / trend spotting

*Source: TNO SEOR-ZSI, adapted from Investing in the Future of Jobs and Skills: Scenarios, implications and options in anticipation of future skills and knowledge needs, Executive summary, Health and Social Services*

The anticipated changes will require new skills. Across all jobs in the sector the importance of soft skills and new knowledge is expected to increase, especially among high skilled professionals. As jobs evolve, the sector report highlights that predefined technical knowledge / capabilities will become less important while lifelong learning and an ability to adapt and learn new competences will become the norm. Occupations within the sector will require the development of different skills and competences, for example:

**Managers** will increasingly require technical knowledge and new commercial skills as new products and services will be developed and problem solving to address any imbalances in demand and supply for services;

**Medical doctors** need hard technical skills to keep up with developments in health care; e-skills to deal with the increasing role of ICT (in diagnostics as well as the treatment and contact with patients); language and communication skills to provide personalised service to an increasingly diverse population; analytical skills to solve problems and management and entrepreneurial skills to show leadership and support optimise how their teams work;

**Health associate professionals** will increasingly require technical knowledge; e-skills to deal with the increased use of ICT (as with medical doctors above); communication skills to respond to increased demands from clients and patients;

**Nursing and midwifery staff** will need to keep up with technological change while a decreasing birth rate (coupled with ageing) will mean that fewer midwives are required and the profession will need to develop specialisation linked to services delivered in hospitals and in residential care.

**Social workers** - the demand for social workers is expected to increase. The need for social skills is expected to increase, in particular language and inter-cultural skills because of a more diversified mix of clients.

**Support workers** are likely to see a general upgrading of their job functions as a result of technological developments. The environment in which lower educated support workers such as those employed in cleaning, laundry, administrative and helping functions is expected to become internationalised.

### 1.3 Migration: a solution to skills shortages?

Within an EU context, there are two dimensions to migration: the migration of non-EU nationals into the European Union and intra-EU mobility, which allows EU nationals to live and work in another Member State.<sup>31</sup> This section covers both dimensions.

#### 1.3.1 International migration trends and patterns

A recent study<sup>32</sup> identified that there was a shortage of 4.3 million health personnel across the world in 2006. It highlighted the rapid increases in migration among health personnel to OECD countries over the past decade. Relaxation of the regulations on permanent migration for doctors in Australia and Canada has resulted in increased migration flows to these countries. In Europe, the UK is the most popular destination for foreign trained doctors with over 5,000 registrations in 2008, though this is significantly lower than the peak at around 14,000 registrations in 2003.

Countries where migration is more commonplace, especially among highly skilled workers, tend to have more migrant health workers. Typically more and better employment opportunities (salaries, working conditions, career advancement) is the motivation for migration and combine with the possibility to provide a better and safer future for one's children. Data from 2000 shows that migrants' origins are diverse: migrants from India and the Philippines<sup>33</sup> (56,000 doctors and 110,000 nurses respectively) make up the bulk of the immigrant health workforce in OECD countries, though some 40 per cent of migrant doctors and 30 per cent of all migrant nurses in OECD countries are from another OECD country.

The ethics of migration of health sector workers has been identified as a concern. Migration is considered ethical if recruitment targets countries where there is a skills oversupply (though the reality of the situation is that skilled health workers choose where they want to work). Indeed, this issue is highlighted in the OECD policy brief which discusses the need for and development of a code of practice on the international recruitment of health personnel as discussed at the 2008 Toyako and 2009 L'Aquila G8 summits. The World

<sup>31</sup> The free movement of persons is one of the four fundamental freedoms guaranteed by EU legislation, along with the free movement of goods, services and capital. It includes the right of EU nationals to freely move to another Member State, to take up employment and reside there with their family members. This right is enshrined in Articles 18 and 39 of the Treaty establishing the European Union.

<sup>32</sup> OECD Policy Brief (February 2010) International Migration of Health Workers.

<sup>33</sup> The Philippines, along with some Caribbean states and increasingly China train nurses for 'export'.

Health Organisation (WHO) has developed a background document to inform the development of a code of practice.<sup>34</sup> Key issues identified include the following:

- The need to ensure the promotion of equality of rights and opportunities for internationally recruited health workers;
- Encouraging mutual benefits by ensuring balance between the interests of the source and destination countries;
- Ensuring national health workforce sustainability including measures to retain and deploy available workers and measures strengthen education and training;
- The need for data gathering, research and information exchange to underpin the monitoring and development of appropriate policies, as current data on migration is limited and fragmented; and
- The need for reporting and monitoring linked to the data gathering and information exchange identified above.

### 1.3.2 **Free movement of labour: the role of EURES in filling skills gaps**

EURES, the European Employment Service has helped address skills shortages for doctors and nurses, for example, in Denmark through partnership working between EURES advisers (see Box 1.3 below).

#### **Box 1.3: EURES activities to support the recruitment of doctors in Denmark**

Denmark is currently facing a shortage of nurses and doctors, with approximately 150 to 200 medical professionals needed to staff Danish hospitals. Based on a successful recruitment campaign undertaken by the United Kingdom's National Health Service (NHS) in 2000, an EU wide recruitment process was launched with the with the help of EURES Italy.

Using contacts at the University of Pavia and the Italian Medical Chamber, staff from EURES Italy organized events including a conference and a jobs fair for university graduates in September 2009. The conference aims were two-fold:

- Raise awareness of skills shortages in Denmark; and
- Provide general mobility information to Italian healthcare professionals interested in going abroad.

At the jobs fair, doctors could submit their CVs and collect information on working in Denmark. To date, approximately 20 to 25 Italian doctors have submitted applications to work in Denmark.

Individuals who can converse in English can apply to the process. Preliminary knowledge of Danish is not a requirement as successful applicants are provided with a six-month Danish language course. Other benefits include assistance when looking for housing, help in finding their partner suitable employment, including help in tailoring their CV to Danish requirements.

From the first set of applications, four Italian doctors have been invited to Denmark for the preliminary stage of the recruitment process.

Source: EURES 'Creating more opportunities for young doctors' found at <http://ec.europa.eu/eures/main.jsp?lang=en&acro=news&catId=20&parentId=0&function=focusOn&focusOnId=9590&archive=N&limit=12&fromHome=N>

<sup>34</sup> Background paper available from <http://www.emro.who.int/rc56/media/pdf/EMRC56INF08en.pdf>.

While EURES Italy is helping the recruitment of doctors in Denmark, Italian hospitals are using EURES to address labour shortages among nurses. For example 40,000 nurses are needed every year in Italy, though only around 7,000 students graduate as nurses each year. EURES advisers in Italy are working with counterparts in Spain and Romania to bring Spanish and Romanian nurses to Italian hospitals.

#### **1.4 Lessons learned**

This case study provides an overview of the foresight, scenario based methodology to identify emerging competences and future skills needs developed for DG EMPL. OECD and Eurostat data, on GDP and employment respectively, are used to inform the initial steps of the methodology. The later steps of the methodology takes the data and the identified key drivers to develop scenarios used to frame the implications for employment and skills, the choices linked to the future demand for labour and the implications for education and training. The methodology requires inputs from stakeholders to validate the findings.

There may be merit in establishing whether this methodology could be used in the Chinese context and whether such an approach can provide a platform through which stakeholders from industry and education and training can establish a dialogue on future skills needs.

The discussion on the role of migration highlights an important global issue in that international co-operation is required to ensure that the healthcare systems in small and developing countries are not weakened by emigration. Both the EU and China have a role to play in ensuring that ethical practices are adopted in measures to address skill shortages.



## 2 CASE STUDY 2: SKILLS INITIATIVES TO ASSIST THE TRANSITION TO A GREEN ECONOMY

### 2.1 Introduction

China and the EU both face challenges linked to climate change. This case study looks at low carbon vehicles, one particular aspect of the green economy and is particularly important, given that China is already the world's largest auto-market and third largest auto manufacturer behind Japan and the US.

The case study provides an overview of key issues for the Chinese, European and UK automotive sector then moves on to focus on the automotive sector in the North East Region in England, where Nissan's European lithium-ion battery plant and electric vehicle production will be based. This case study demonstrates the approach adopted by the UK government and the Regional Development Agency in providing the skills necessary to produce lithium-ion batteries and produce electric vehicles.

### 2.2 Car industry and transition to green vehicles – China and the EU

The Climate Group identified that some 2.91 million people in **China** are employed in the auto industry and 30 million are employed in related industries, accounting for 2.31 per cent of GDP.<sup>35</sup> In terms of scale, if current trends continue the number of cars on the road in China will triple to 150 million by 2020 and 287 million by 2030, producing 20 per cent of global CO<sub>2</sub> emissions. Encouraged by the Chinese Government's four billion Yuan crisis package and the 'Adjustment and Revitalisation Plan for the Automotive Industry', introduced in 2009, the aim is to promote the development of energy efficient, low emission and compact vehicles. Measures linked to the Plan include:

- A cut in sales tax from 10 per cent to 5 per cent for vehicles with engines below 1.6L;
- Abolished road maintenance fees;
- Dropping fuel tax, a measure that has been under discussion for 14 years;
- Demonstration projects aimed at putting 1,000 electric vehicles on the road in ten Chinese cities before the end of 2009.

Over the next three years 20 billion Yuan has been allocated by the Chinese government to promote the development of low carbon vehicles.<sup>36</sup>

In **the EU**, car manufacturers are facing both market and regulatory demands. Increased environmental awareness means that (some) consumers are demanding low emitting vehicles while regulation imposes stringent targets to reduce emissions. In the European Union, a key regulatory driver for the car industry is the EU's New Cars CO<sub>2</sub> Regulation.<sup>37</sup> By specifying a stretching target of 130g/km CO<sub>2</sub> by 2015 and 95g/km by 2020, the Regulation is driving strategic planning decisions on the industry and is consequently leading to investments into low carbon vehicle research and development.

<sup>35</sup> The Climate Group (August 2009) China's clean revolution II: opportunities for a low carbon future <http://www.theclimategroup.org/assets/files/Chinas-Clean-Revolution-II.pdf>

<sup>36</sup> The Climate Group (August 2009) China's clean revolution II: opportunities for a low carbon future <http://www.theclimategroup.org/assets/files/Chinas-Clean-Revolution-II.pdf>

<sup>37</sup> HM Government, Ultra low carbon vehicles in the UK: the challenge, April 2009.

The European Economic Recovery Plan (EERP) has supported the automotive sector. The European Investment Bank announced EUR 3.8 billion investment in automotive sector projects, with a further EUR 6.8 billion in the pipeline for a combination of European and Member State level actions. This investment complements activities initiated in advance of the economic crisis, such as the CARS 21 process (Competitive Automotive Regulatory System for the 21st century), launched in 2005 to make recommendations for short, medium, and long-term public policy and regulatory framework of the European automotive industry.

In the UK, a recent industrial policy (April 2009)<sup>38</sup> introduced its Low Carbon Industrial Strategy and the Low Carbon Transition Plan that provided the context for the introduction of low carbon economic areas (LCEA), including in the North East region.<sup>39</sup> They are intended to:

- Accelerate the growth of low carbon industry in places where economic strengths already existed; and
- Provide a common local and regional focus to sectors of national interest in the move towards a low carbon economy.

The Low Carbon Industrial Strategy states that Britain will target investment of more than £400million to realise its ambition to be at the forefront of ULCV development, including:<sup>40</sup>

- Launching a £250 million programme to reduce the cost of new electric vehicles to consumers by providing £2000 - £5000 support per car;
- Providing £30 million of grant funding for travel operators to purchase low carbon buses;
- Investing £140 million in higher education and research and development through the Low Carbon Innovation Platform;
- Providing funding for 150 low-emission vehicles and all electric vans in public sector fleets; and
- Developing infrastructure through funding for local authorities to install EV re-charging points in public places.

The first LCEA, in the North East Region, focuses on ultra-low carbon vehicles (i.e. those vehicles that produce zero emissions). The North East of England has over 220 automotive companies based in the region. These include manufacturing, research and development (R&D) and specialist services such as design engineering and advanced performance engineering. One North East<sup>41</sup>, the regional development agency for the region, estimates that over 26,000 people are employed in the sector which contributes £1 billion to the regional GVA.

<sup>38</sup> HM Government (April 2009) New Industry, New Jobs, available at <http://www.bis.gov.uk/files/file51023.pdf>

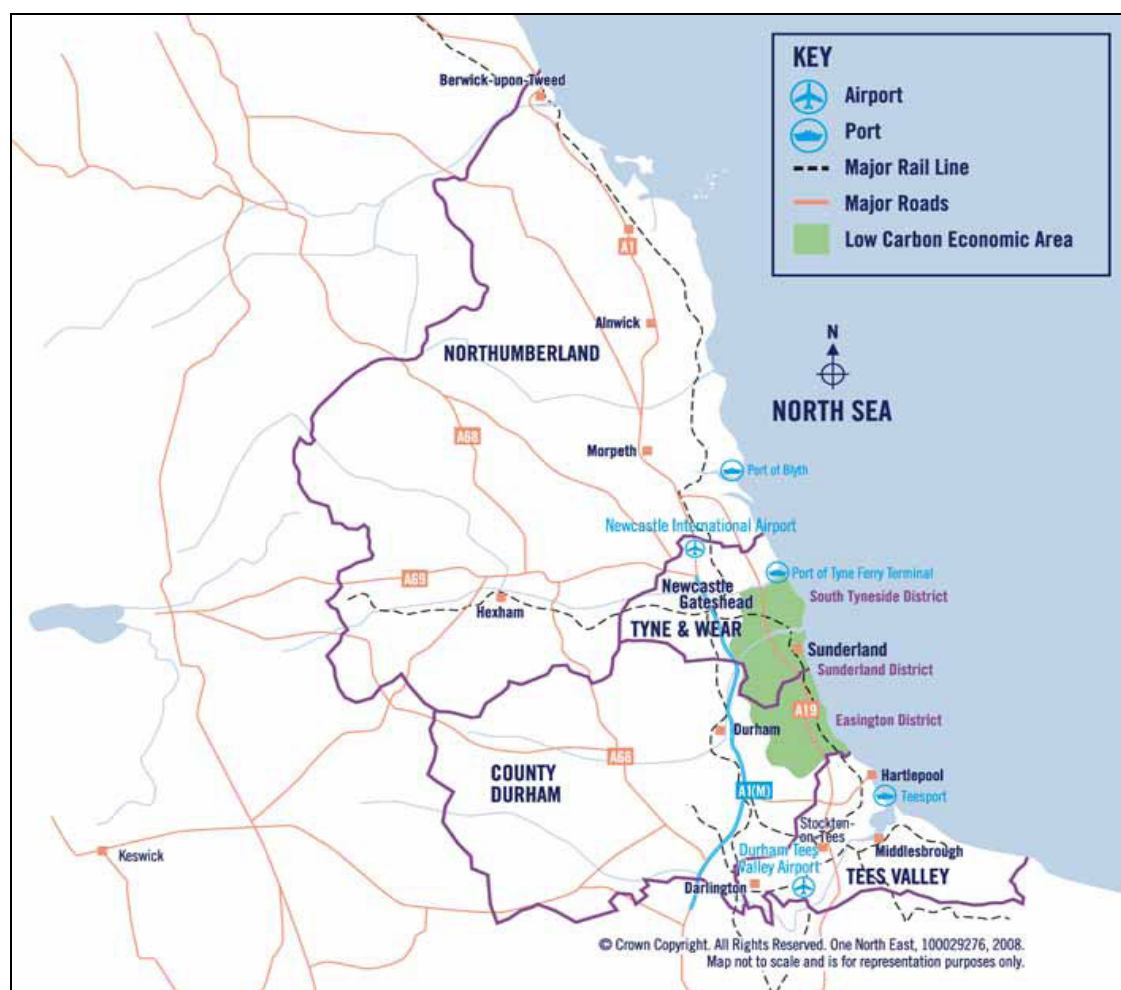
<sup>39</sup> HM Government Department for Transport, Department for Business, Enterprise and Regulatory Reform. Department for Innovation, Universities and Skills (April 2009) Ultra low carbon vehicles in the UK, <http://www.dft.gov.uk/adobe/pdf/187604/ultralowcarbonvehicle.pdf>

<sup>40</sup> Ultra-low carbon cars: Next steps on delivering the £250 million consumer incentive programme for electric and plug-in hybrid cars, Department of Transport, 2009.

<sup>41</sup> One Northeast is the Regional Development Agency (RDA) for the region charged with furthering economic growth, supporting employment and leading developments in skills relating to the growth objectives of the region.

One North East, the Regional Development Agency (RDA) operating in the North East Region leads on the development of the North East Low Carbon Economic Area.<sup>42</sup> Figure 2.1 below shows the 'core area' which covers Sunderland (where Nissan is based), South Tyneside and Easington – where much of the region's existing automotive industry is based – within the regional context.

**Figure 2.1: The North East Low Carbon Economic Area in its regional context**



Research and development (R&D), providing locations for investment, the provision of electric vehicle charging points and infrastructure and skills support are key activities within the LCEA. Key developments include:

- **Research and development: the National Low Carbon Vehicle Research and Development Centre** - the National Low Carbon Vehicle Research and Development Centre will bring together five North East universities (Newcastle, Durham, Sunderland, Northumbria and Teesside) with industry leads to undertake applied research. To enhance the Centre's R&D offer One North East is investing in an open access test track for industry and higher education institutions to

<sup>42</sup> One North East (September 2009) Leading the way in low carbon vehicles  
[http://www.onenortheast.co.uk/lib/iiDownload/15491/ONE%20Low%20Carbon%20Vehicles%20\(final\).pdf?CFID=9825194&CFTOKEN=95270216](http://www.onenortheast.co.uk/lib/iiDownload/15491/ONE%20Low%20Carbon%20Vehicles%20(final).pdf?CFID=9825194&CFTOKEN=95270216)

demonstrate and trial new technologies. The RDA has leased Nissan's existing medium speed test track and workshops for a period of 20 years.

- **Locations for investment** - the LCEA includes business parks suitable for the location of research engineering and design and large scale manufacture; access to the existing automotive and energy supply chains; and direct access to research and development facilities identified above. The area also offers rail and deep-port access and international airports.
- **Electric vehicle charging points and infrastructure** – as part of the 'Plugged-In Places' initiative the North East Region is one of the lead places for the electric vehicle infrastructure (with London and Milton Keynes) through which various types of recharging infrastructure will be installed on-street and in local authority managed work, retail and leisure facility car parks.

### 2.3 Nissan: lithium-ion battery production and the Nissan LEAF

Nissan Motor Manufacturing UK based in Sunderland (north-east region of the UK) is the largest car manufacturing facility in the UK and the most productive in Europe. Nissan's Sunderland site produces one in every four cars manufactured in the UK. It is a major regional employer, employing up to 4,900 workers directly and supporting many more in its supply chain.

Nissan originally located in the North East in 1984 to take advantage of the skilled labour force as the closure of many shipyards and the decline of the coal industry in the region resulted in high unemployment<sup>43</sup>. The move into low carbon vehicles demonstrates that Nissan is evolving to respond to environmental challenges and customer demands. As a result of the global economic crisis in January 2009 Nissan announced 1,200 job losses (800 permanent and 400 temporary jobs) at its Sunderland plant, representing one quarter of its total workforce. Battery production and the assembly of the Nissan LEAF are expected to create new jobs as well as safeguard existing jobs.

In March 2010 Nissan announced that its third global site for producing the Nissan LEAF was Sunderland. Production of the Nissan LEAF will begin in Oppama, Japan later in 2010 followed by Smyrna, Tennessee, USA in 2012. The Sunderland site will come on-line in early 2013 with an initial annual production capacity of about 50,000 units.

The production of the Nissan LEAF and batteries represents a total investment of more than EUR 468.2 million (£420 million) in their Sunderland plant and is expected to maintain approximately 2,250 jobs at Nissan and across the UK supply chain. The investment will be supported by a EUR 23.1 million (£20.7 million) Grant for Business Investment (GBI) grant from the UK government<sup>44</sup> and a proposed finance package from the European Investment Bank of up to EUR 220 million (£197.3 million).

Construction of the lithium-ion battery plant was scheduled to start in April 2010. The plant's production capacity is 60,000 units per annum and will build batteries for both Nissan and its Alliance partner Renault. Production is expected to start in 2012.

<sup>43</sup> Nissan U.K.: a worker's paradox?, Thompson and Rehder, Business Horizons, 1995.

<sup>44</sup> GBI is a discretionary grant scheme from the Department of Business, Enterprise and Regulatory Reform – BERR. The scheme provides capital investment to encourage businesses to invest in land and buildings, plant and machinery to support expansion and modernisation across England. Eligible investments are expected to increase productivity, skills and employment.

## 2.4 Measures to provide support for sector-specific skills development

The RDA works with regional sector bodies and groups of companies in the automotive sector to boost the productivity and profitability by providing support on skills and product development, enhancing the supply chain and market penetration.

As the main driver behind the LCEA, One North East is leading the response to building a strong skills base for low carbon vehicles. The approach is to ensure that the existing labour force is ready for electric vehicle manufacture and ongoing maintenance.

Strong links are already in place between employers, education and training providers and the RDA to ensure that the skills base of the North East's workforce matches employers' needs. The diverse education and training offer in the region already provides opportunities through apprenticeships (for young people), short courses for adults seeking to retrain and through research expertise being developed by higher education institutions (HEIs). Examples of the types of training available and research expertise are identified in Box 2.1.

### Box 2.1 – Local skill development initiatives

#### 1 - Apprenticeships at Gateshead College

Gateshead College is a Skills Academy for Automotives and Logistics and trains apprentices for Nissan's and companies in their supply chain. Approximately 100 apprentices undertake the 2 year scheme each year. Apprentices study industry approved qualifications in a workplace environment. The Skills Academy facilities simulate the Nissan production line and include a rolling road for vehicle testing, specialist welding facilities and a body and paint shop. Apprentices work with Nissan line managers and wear Nissan uniforms to fully represent the real working environment. The training course is supplemented with literacy, numeracy and ICT training. Learners work towards the following qualifications:

- NVQ in Performing Engineering Operations
- NVQ in Performing Manufacturing Operations
- NVQ Level 3 in Engineered Systems
- First diploma in Engineering (Maintenance)
- National Diploma in Electrical and Electrical Engineering
- Foundation degree in Maintenance Engineering.

#### 2 - The NA Group – pre-employment training for unemployed people

The NA Group, a private training provider, is currently collaborating with Nissan to deliver a green collar pre employment training course aimed at unemployed people seeking employment in the automotive industry. The five-week course is fully funded by the Public Employment Service (Jobcentre Plus). The training course includes a mixture of lean manufacturing techniques, health and safety, basic skills, such as literacy and numeracy, and environmental awareness. Course completers are then fast tracked on Nissan's selection process. The scheme is intended to offer training to 1000 unemployed people with the first 120 trainees starting training in November 2009. The rationale for the course is to help potential applicants become "job ready" after a period of time away from the labour market.

### 3 - Developing the region's knowledge base at local universities

Newcastle University, Sunderland University and the University of Durham already have research expertise pertinent to the automotive sector as follows:

- Newcastle University: the Centre for Advanced Electric Drives that has expertise in power electronics, control systems and the Transport Operations Research Group with expertise in advanced technologies and behavioural research to facilitate changes in transport systems and infrastructure
- Sunderland University: the Institute for Automotive and Manufacturing Advanced Practice which has expertise in the conversion of conventional vehicles to hybrids
- University of Durham: the Centre for Automotive Research which brings together expertise from the departments of Engineering, Mathematics and Physics to support the global motor industry.

### 4 - Low Carbon Future Leaders Graduate Placement scheme

One North East is also working in collaboration with the region's universities to pilot the Low Carbon Future Leaders Graduate Placement scheme which provides graduates with the opportunity to work and gain paid work experience. This national scheme, announced in September 2009, by the Department of Business, Innovation and Skills is expected to provide 1,500 funded placements for graduates in the low carbon vehicles in the North East and the low carbon marine sector in the South West.

One of the flagship initiatives in this context is a collaborative venture between Nissan with Gateshead College, the NA Group and One North East to build a state-of-art green collar training centre - **the National Training Centre for Sustainable Manufacturing** - on a site adjacent to the Nissan site. The centre will be equipped to deliver training on all aspects of ULCV: manufacturing, charging, storage and handling of batteries and fuel cells and vehicle maintenance. It is expected that at least 60 businesses will access the training centre. As with the current training offer provided by Gateshead College (see Box 2.1), the Centre will provide training for young people and adults wishing to enter the automotive sector.

Concerning electric vehicle maintenance, the RDA is working roadside assistance firms and the emergency services to ensure that they are equipped to deal with electric vehicles as follows:

- With the AA (Automobile Association) and RAC (Royal Automobile Club), two of the UK's major roadside assistance firms the RDA is developing a training programme for their mechanics so that EVs can be easily and cost effectively maintained.
- With the emergency services, the RDA working with the police and fire service to ensure that they have the necessary skills and knowledge of EVs to deal with emergencies (for example how to extinguish a fire caused by a collision between a hydrogen fuelled car and an EV).

## 2.5 Lessons learned

A key feature of this case study is the concerted efforts by the UK government, the RDA and education and training institutions to ensure that the education and training offer in the region meets companies' needs, provides a skilled workforce equipped to respond to technological change. The creation of a Low Carbon Economic Area focusing on ultra-low carbon vehicles acknowledges the expertise that exists in the region already and provides a

focus for future development in the automotive sector within the context of the UK's Low Carbon Industrial Strategy. A partnership approach developed between different stakeholders involved – the companies, training providers, the regional government agencies – is constructive in ensuring the synergies are exploited in delivering the skilled adaptable workforce required for the regional economic development.

### 3 CASE STUDY 3: FACILITATING MATCHING – APPRENTICESHIPS AND MEASURES TO SUPPORT GRADUATES INTO THE LABOUR MARKET

#### 3.1 Introduction

In both China and the EU young people are among the groups most affected by the economic crisis. In China, the lack of and the need for good vocational training have been identified. In addition, young people, especially graduates, are facing difficulties finding jobs as demand is at a low level and the thresholds are higher for young people entering the labour market.

The aim of this case study is to introduce different approaches to assist young people enter the labour market. It comprises two dimensions:

- Apprenticeships, which provide a vocational route into the labour market;
- The identification of measures to support university graduates into the labour market, based on the Portuguese measure of the Professional Traineeship Programme for Young Adults.

#### 3.2 Apprenticeships as a vocational route into the labour market

Apprenticeships are one of the available vocational routes into the labour market offered through the different vocational education and training (VET) systems in Europe. There are different types of vocational training systems in Europe, reflecting substantial differences in the regulation of education and training systems, their links with the labour market, the reputation of vocational education and training (within the country context) and the organisation of the labour markets (further information on the different systems and vocational training take-up rates is provided in Annex 1).

In countries with apprenticeship based systems (e.g. Austria, Germany and Denmark), these can help keep youth unemployment low, evident in Austria and Germany, where the rise in youth unemployment during the economic crisis has been low. The purpose of this part of the case study is to explore the experience of countries with strong-established apprenticeship-based systems, where apprenticeships are well-regarded and well-established (i.e. Austria and Germany).

##### 3.2.1 *The defining features of apprenticeship systems*

In countries like Austria and Germany,<sup>45</sup> the apprenticeship system is usually defined as the dual training system, characterised by work-based training of apprentices complemented by compulsory vocational schooling. The aim of apprenticeship training is to provide general education complemented by occupation-specific knowledge and skills that would enable direct access to the labour market. The dual system operates in occupationally-defined labour markets where entry into a significant number of professions is dependent on the completion of formal vocational training and participants obtaining a requisite qualification.

Apprenticeships are usually based on a contract between the apprentice and the employer to offer training in the workplace which is, combined with off-the-job training in schools or specific VET centres.

<sup>45</sup> See the detailed descriptions of the country-specific apprenticeship models at [http://www2.cedefop.europa.eu/etv/Information\\_resources/NationalVet/Thematic/criteria\\_reply.asp](http://www2.cedefop.europa.eu/etv/Information_resources/NationalVet/Thematic/criteria_reply.asp)



The apprenticeship training typically takes place in private and public enterprises. The apprentice is thus part of a company and is employed by the training enterprise according to an apprenticeship training contract. The apprentice is formally protected by employment and social security law. The status of apprenticeship training is the same as regular employment and apprentices receive a wage for their work. In Germany, for example, the wage is typically a third of a skilled worker's wage, which is regulated by a collective wage agreement between the social partners.

When entering apprenticeship training, young people are also required to attend compulsory (part-time) vocational education and training. This education and training provides occupation-specific, theoretical knowledge and a general education according to the formal education curricula.

In Germany and Austria, young people can choose from around 300 apprenticeship trades which are formally approved and regulated by legislation. For each of the approved apprenticeship trades, the government defines the description of occupational skills (occupation-specific knowledge and professional skills) that are obligatory for all enterprises providing apprenticeship training. The work-based occupational content is coordinated with curricula in vocational schools. Apprenticeships are found in traditional trades as well as in technical areas such as ICT, laboratory work and hospital technicians.

In Austria and Germany, the number of apprenticeship places is demand driven as it is linked to the availability of apprenticeship places offered by enterprises. Here, the supply and demand for apprenticeships is brought into balance by adjusting provision to the needs of the labour market, while also taking into account student preferences and economic developments across different regions and sectors.

### **3.2.2 The success factors for apprenticeships**

It is generally recognised that countries with strong apprenticeship systems (such as Austria and Germany) offer fast and stable transitions for young people from vocational training into the labour market. There are several reasons for this, as follows:

- Very strong connections with the labour markets which mean that there are clear and identified links between apprenticeship qualifications (and final certificates) and the organisation of work, career structures and pay. Apprenticeships provide a direct bridge between school-based vocational training and the world of work, by bringing vocational training directly into the workplace.<sup>46</sup> In practice this means that the training of a future computer technician, for example, takes place in the ICT company, where the apprentice is involved directly in the real work processes.
- Apprenticeships lead to better direct employment opportunities for participants. Companies where apprenticeships are taking place become familiar with the apprentices, have opportunities to 'trial' them in real work situations and assess their suitability for actual employment. This is true especially in the short term because students who complete an apprenticeship often remain employed within their training enterprise and therefore have an advantage over school-based vocational graduates.
- Apprenticeships are well regarded among employers and young people. They are not considered to be 'a second choice for poor school performers', but have a well established reputation as an attractive option for young people to continue their education and enter the labour market.

<sup>46</sup> See <http://www.oecd.org/dataoecd/36/24/43926141.pdf>

- Apprenticeships lead to recognised certificates of completion that are formally issued and approved by the state, and provide a certified entry into a profession for a young person. In this way, the apprenticeship completion certificates provide a formal recognition of the training process and outcomes which is recognised and valued by the employer and apprentice.
- Apprenticeships are supported by social partners, evident in their ongoing involvement in the development of curricula and qualifications, anticipating and influencing the development of training standards and qualifications, and retaining of apprenticeship places (even in the economic downturn). For example, in Austria, during the current economic downturn government and the social partners (trade unions and the main employer associations) have made considerable efforts to maintain the level of apprenticeship places commensurate with the demand.
- Apprenticeships are underpinned by a process of continuous improvement, evolving to allow the training to remain up-to-date given changes in the world of work and work organisation. The apprenticeship offer also includes support to apprentices to help them develop key soft skills – such as customer care – in a real world environment. For example, an apprentice electrician would undertake vocational training which includes theory (e.g. the physics of electricity), practical hands-on skills (e.g. how to wire a house) and practical generic skills (e.g. dealing with clients, customer care).

Whilst the strong apprenticeship-based systems in Germany and Austria have proved successful, they need to address some challenges:

- Encouraging employers to offer a sufficient number of training places. The offer of apprenticeship places is directly related to the economic performance of companies. During the current economic downturn, for example, the governments in Germany and Austria had to provide significant resources and support to maintain the number of apprenticeship places. This demonstrates that apprenticeship-based systems require continuous public support and investment and other routes to the labour market for young people have to be developed and supported as well.
- Ensuring that training provided to apprentices by employers is of good quality, providing latest occupation-specific skills as well as up-to-date industry knowledge and adequate generic transferable skills. Continuous quality assurance and improvements can be costly and unattractive to employers, and therefore the maintenance of quality training needs to be maintained attractive in terms of the costs to employers relative to immediate and potential benefits.

### **3.2.3 The expansion of apprenticeships**

The success of apprenticeship—based systems has helped to spread the model to other European countries.<sup>47</sup> Where apprenticeships do not exist or are not extensively developed, governments are looking at ways to introduce them, viewing them as an important alternative to school-based provision for students and employers. Apprenticeships are

<sup>47</sup> In Hungary, the share of students in apprenticeships increased almost five fold between 2000 and 2005, from 6,616 to 32,117 students.

In France, plans were implemented to increase the number of apprenticeships by 40 per cent between 2005 and 2009 (from 360 000 to 500 000), through simplifying conditions, by making it more difficult to break an apprenticeship contract, and by increasing complementary financing, amongst other measures.

In the UK, the number of apprenticeships has grown from 75,000 to 240,000 in the last ten years, accompanied by an expansion of the occupations covered so that they now cover areas such as computer game testing, broadcasting, film and video, hospitality and catering, with new schemes introduced on a continuous basis. The number of apprenticeships is expected to rise by a further 90,000 by 2013.

Beyond the Maastricht Communiqué: developments in the opening up of VET pathways and the role of VET in labour market integration, March 2008 ECOTEC for DG EAC. [http://ec.europa.eu/education/more-information/doc/vetreport\\_en.pdf](http://ec.europa.eu/education/more-information/doc/vetreport_en.pdf)

undergoing resurgence and now appear to be seen as important alternative track into the labour market even in countries that previously pursued policies of trying to reduce the differentiation between VET and general education.

It also needs to be acknowledged that many Member States have focussed efforts to increase apprenticeship structures as a policy response to the recent global economic downturn. This was seen as an important measure to address increasing youth unemployment and offer viable and attractive vocational training routes to young people.

### **3.3 Professional Traineeship Programme for Young Adults in Portugal**

The Professional Traineeship Programme for Young Adults (PTP) in Portugal offers practical on-the-job work experience in a company for up to twelve months. It is part of a broader policy of support to help young people access the labour market. The programme covers the whole of Portugal (total population 10,627,250) and all sectors, with the exception of public authorities, can participate. While established before the financial crisis, in 2009 the number of places available increased from approximately 25,000 to 30,750.

#### **3.3.1 Programme objectives**

The programme supports the transition between the education system and the labour market by:

- Complementing and improving the skills of unemployed young people to facilitate their recruitment and integration into the labour market; and
- Raising awareness among enterprises of new qualifications and competences available and promote employment in new areas.

The traineeship programme provides young people aged up to 35 years old with upper secondary, post secondary and tertiary level qualifications. The programme helps young people gain their 'first contact' with the labour market. From 1997 until 2008 the target population was broader in terms of the qualification levels (i.e. those with more than six years of education) and narrower in terms of age (those aged under 30).

Enterprises are also seen as programme beneficiaries as they benefit from reduced costs and risks associated with recruiting high skilled graduates.

#### **3.3.2 Programme delivery and financing**

The Professional Traineeship for Young Adults programme is managed by the Instituto do Emprego e Formação Profissional (IEFP, the Institute of Employment and Vocational Training within the Portuguese Public Employment Service).

Promoter organisations (enterprises) register and submit their applications for the programme online. Each promoter organisation provides a tutor responsible for the technical and pedagogical supervision of the trainee. This tutor monitors performance relative to the objectives identified in the traineeship individual plan and assesses the outputs from the traineeship which are documented in a 'traineeship follow-up and evaluation report'. At the end of the programme, trainees are required to complete an evaluation of their experiences during the programme.

The programme is co-financed by the European Social Fund and IEFP by 70 and 30 per cent respectively. Trainees receive grants dependent on their education levels: those with higher level qualifications receive higher grants. In 2009, trainees who have completed higher education received EUR 838.44 per month, those who have participated in post secondary education EUR 733.64 and those who completed post secondary education EUR

628.83. Promoter organisations co-finance the grants, dependent on the nature and size of the business. Up until 2009, the IEFP co-financing rates were higher for not for profit companies (67 per cent) and were at a flat rate of 50 per cent irrespective of company size.

Since 2000 some EUR 400 million has been spent on the programme: average spend per annum by IEFP has increased from EUR 38 million in 2000 to EUR 58 million by 2009. The average cost per trainee is calculated at EUR 5,334.80 over the lifetime of the programme.

### **3.3.3 Results and impacts from the Programme**

Some 70.4 per cent of programme participants have completed more than twelve years of education and the majority of them are identified as social science and humanities graduates that lack work experience. Participants use the programme to develop the soft skills necessary to function in the labour market, and their first contact with the labour market.

Over the 12 years that the programme has been operational, more than 170,000 unemployed young people have participated in it. Transition rates from the programme have remained consistently high, with 72.5 per cent of participants remaining in employment for the company with whom they completed their traineeship (76 per cent of those who found work) or had found employment within three months from completing the programme.

Research suggests that one in four of all young people entering the Portuguese labour market did so as a direct result of participating in the Professional Traineeship for Young Adults programme.<sup>48</sup>

Feedback from young people participating in the programme indicates that the opportunity to contribute to 'real' projects during the training gives them the chance to develop their practical skills without the pressure of having to deliver immediate results. The traineeship tutors play an important role in assisting the young people participating in the programme to identify their strengths and development needs.

While the programme has assisted a significant group of young qualified people into the labour market, since it was introduced there has also been an absolute increase in the numbers of people in the Portuguese labour market with upper secondary and tertiary level education. In 1997 some 537,900 people were qualified at the tertiary level compared with 776,400 in 2008 (a 44 per cent increase) while those with upper secondary qualifications increased from 579,300 to 790,600 over the same period (a 36 per cent increase).

While the traineeship programme has proven successful in terms of its impact it still faces a number of challenges:

- The Portuguese labour market remains dominated by low skilled labour: many employers in Portugal are still reluctant to employ qualified workers; and
- In light of the economic crisis, small and medium sized employers in particular are reluctant to invest in the recruitment of new staff, in particular those who are likely to represent higher salary costs.

## **3.4 Lessons learned**

The Portuguese example is particularly pertinent for China as one of the characteristics of the Portuguese labour force is its high employment rate and low qualifications base: people

<sup>48</sup> P 16, How to cope with an extremely unqualified workforce, Mutual Learning Programme, Host country discussion paper – Portugal [http://www.mutual-learning-employment.net/uploads/ModuleXtender/PeerReviews/74/Portugal\\_HOST\\_COUNTRY\\_paper\\_FINAL.pdf](http://www.mutual-learning-employment.net/uploads/ModuleXtender/PeerReviews/74/Portugal_HOST_COUNTRY_paper_FINAL.pdf)

with low level qualifications can often find employment more easily than those with higher level qualifications.

The programme is consistent with the findings from the New Skills for New Jobs expert group which highlighted that there is a need to provide the right incentives to individuals and employers to ensure that people's skills are best used.<sup>49</sup> Indeed, for employers the programme provides low risk approach to 'testing' whether a trainee is suitable, with no obligation to employ them at the end of the traineeship.

The traineeship approach as a means of providing young people with work experience is being used in a number of Member States to facilitate the education / work transition. In some cases, like the Portuguese example discussed, programmes focus on work experience, whereas in other cases of dual training systems the direct workplace training and working experience provided is complemented by formal training.

The apprenticeship-based approach is an example of this latter approach, by providing young people with the formal training and work experience they need to gain a foothold in the labour market. Particularly important in the German and Austrian systems is the responsiveness of the training offer relative to employers' needs and technological change. Also important is the consensus of employers, parents and young people on the value of apprenticeships and their usefulness as a vocational training route into the labour market. The dual training system is also underpinned by the necessary training infrastructure, both in the workplaces and vocational schools/specific VET centres.

The apprenticeship model therefore cannot be considered to be a panacea, directly transferable into other contexts without the underpinning features of the German and Austrian systems. In countries with weak apprenticeship culture, where they are viewed as a substitute for higher education (or a measure of last resort) and aimed primarily at low achievers or disadvantaged, the introduction (or strengthening) of apprenticeships may do little to improve the labour market outcomes of young people undergoing such dual vocational training.

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<sup>49</sup> New Skills for New Jobs: Action Now – A report by the Expert Group on New Skills for New Jobs prepared for the European Commission (February 2010)

## 4 CASE STUDY 4: HARMONISED DATA COLLECTION AND THE USE OF DATA TO INFORM ANTICIPATION AND MATCHING ACTIVITIES

### 4.1 Introduction

This case study describes and analyses the process and infrastructure underpinning the current system of harmonised and comparable labour market data production in the EU. Eurostat data are available for all European Union (EU) Member States. These data are used to inform anticipation and matching activities in Europe.

Data collection in China focuses on the urban population hence the rationale for this case study was to provide information on the processes and infrastructure in place to collect harmonised and high quality labour market information across the European Union to inform anticipation and matching activities.

### 4.2 About Eurostat

Eurostat is the statistical office of the European Union<sup>50</sup>. Its main role is to process and publish comparable statistical information at the European level, to facilitate and inform EU policy-making, by all its constituent stakeholders, such as the European Union institutions, national, regional and local governments. Eurostat statistics are intended to inform the definition, implementation, monitoring and analysis of policies taken by the European Union.

On establishment in the 1950s Eurostat covered six Member States. The coverage and availability of harmonised European statistics has expanded significantly over the years, in parallel with the developments in the European integration process. In 2010, Eurostat statistics cover:

- 27 EU Member States (representing a total population of just above 500 million; ranging from around 420 000 people in Malta to around 82 million people in Germany). In comparison, the total population of China is 1.3 billion.
- Countries that have applied for a membership in the EU (Croatia, Macedonia, Turkey, Serbia, Iceland); and
- Countries with association ties to the EU (Norway, Switzerland and Liechtenstein).

As a consequence, Eurostat's main work in the area of European statistics now covers 35 countries as a baseline position, with other countries covered depending on the cooperation agreements and relevance of the statistical topic.

The latest expansion to Eurostat's coverage was the accession of 12 (mainly central and eastern European) countries in 2004<sup>51</sup> and 2007<sup>52</sup>, increasing the EU's population by around 125 million (ranging from around 420 000 people in Malta to around 38 million people in Poland). The statistical systems in the 12 new Member States (EU12) had to be adapted to the standard European statistical systems. A significant technical assistance

<sup>50</sup> <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>

<sup>51</sup> Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia.

<sup>52</sup> Bulgaria, Romania.

programme was implemented in the EU12 countries, delivered by Eurostat and the available national statistical institutes in the pre-existing Member States (EU15).<sup>53</sup>

The technical assistance programme was implemented through multi-national project teams that worked with each country to adopt and transfer statistical Community standards. Members of the project teams supplemented the standards implementation with their respective national experiences. Their know-how was transferred through intensive training given to the officials in the statistical offices in the EU12 Member States. As the level of technical and statistical knowledge was very high amongst staff at the EU12 statistical offices, the training focussed on improving management systems, transferring knowledge of the concepts of the market economy and computer hardware. The training was followed by full-scale pilot projects which then allowed for mainstreaming the adaptation process into the key statistical systems and procedures in the EU12 Member States.

#### 4.2.1 *Legal framework for the European statistics*

The work of Eurostat and the development, production and dissemination of European statistics are regulated by the European and national law. This provides the legal base and framework for the operations of Eurostat and its cooperation with the relevant national authorities in the Member States in the production of the European statistics.<sup>54</sup>

The most recent **regulation on European statistics**<sup>55</sup> provides a legal framework for the collection, analysis and dissemination of European statistics, including:

- Statistical principles underlying the development, production and dissemination of European statistics (such as professional independence, impartiality, objectivity, reliability, statistical confidentiality, and cost-effectiveness). Such principles are applied by the national statistical institutes and Eurostat in the development, production and dissemination of European statistics.
- Governance of the European Statistical System – such as the roles of the national statistical institutes and other national authorities; Eurostat; European Statistical System Committee; European Statistics Code of Practice, as follows:
  - The national statistical authority in each Member State is the body responsible for coordinating all activities at national level for the development, production and dissemination of European statistics.
  - Eurostat ensures the production of European statistics according to established rules and statistical principles. In this respect, it has the sole responsibility for deciding on processes, statistical methods, standards and procedures, and on the content and timing of statistical releases.
  - European Statistical System Committee (ESS Committee) provides professional guidance to stakeholders for developing, producing and disseminating European statistics in line with the statistical principles.
  - The European Statistics Code of Practice establishes how European statistics are to be developed, produced and disseminated to conform with the statistical principles.

<sup>53</sup> A. De Michelis and A. Chantraine, *Memoirs of Eurostat Fifty years serving Europe*, 2003.

[http://epp.eurostat.ec.europa.eu/portal/page/portal/product\\_details/publication?p\\_product\\_code=KS-49-02-183](http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-49-02-183)

<sup>54</sup> For a full list of relevant legislation see

[http://epp.eurostat.ec.europa.eu/portal/pls/portal/!PORTAL.wwpob\\_page.show?docname=1834259.PDF](http://epp.eurostat.ec.europa.eu/portal/pls/portal/!PORTAL.wwpob_page.show?docname=1834259.PDF)

<sup>55</sup> Regulation (EC) No 223/2009, of 11 March 2009, [http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:087:0164:0173:EN:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:087:0164:0173:EN:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:087:0164:0173:EN:PDF)

- Production of European statistics through the European statistical programme. The programme provides a framework for the development, production and dissemination of European statistics, and defines the main fields and the objectives of the actions envisaged for a period of around five years. The current programme covers 2008-2012.<sup>56</sup> The programme is supported by detailed annual work programmes.<sup>57</sup> The budget for the 2008-2012 Community Statistical Programme is EUR 274.2 million (2.52 billion RMB). The programme identifies approaches, the main fields and the objectives of the statistical actions envisaged during the Programme period.
- Dissemination of European statistics – specific measures by the national statistical institutes, Eurostat and other stakeholders, as well as defining public use of files.
- Statistical confidentiality and protection of confidential personal data, establishing that statistical data must be exclusively used for statistical purposes unless the statistical unit has unambiguously given its consent to the use for any other purposes.

It is important to acknowledge that the national statistical systems are not fully harmonised and the regulation provides the mechanism through which Eurostat and national statistical institutes (and other relevant bodies) work towards the harmonisation of national statistics.

**Annex 1** provides a list of the main labour market statistics available from the Eurostat.

The Programme described above is implemented in accordance with the **European Statistics Code of Practice**.<sup>58</sup> With the adoption of the European Statistics Code of Practice in 2005, Eurostat and the statistical authorities of the EU Member States have made an explicit commitment towards high quality statistics. The Code is covering the institutional environment, statistical production processes and outputs for European official statistics. This provides a reference basis for reviewing and assessing the implementation of the Code by Eurostat and the EU Member States. Further information about the principles and good practice indicators are provided in Annex 1.

The European Statistics Code of Practice underpins the operation of the **Eurostat Quality Assurance Framework**, which offers tools and procedures put in place to ensure the quality of European statistics produced.<sup>59</sup>

#### 4.3 Labour market data collection processes and mechanisms

Comparability and harmonisation of data from the 27 Member States and candidate countries is attempted through the establishment of a common statistical 'language' that embraces concepts, methods, structures and technical standards.

Eurostat itself does not collect data. This is done in individual Member States by their statistical authorities. They verify and analyse national data and send them to Eurostat. Eurostat's role is to consolidate the data and ensure they are comparable, using the appropriate harmonised methodology.

<sup>56</sup> Decision No 1578/2007/EC of the European Parliament and of the Council of 11 December 2007 on the Community Statistical Programme 2008 to 2012,

[http://eur-lex.europa.eu/smartapi/cgi/sga\\_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=en&numdoc=32007D1578&model=quichett](http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=en&numdoc=32007D1578&model=quichett)

<sup>57</sup> For 2010 detailed work programme see [http://epp.eurostat.ec.europa.eu/portal/page/portal/ver-1/about\\_eurostat/documents/AWP\\_2010\\_final.pdf](http://epp.eurostat.ec.europa.eu/portal/page/portal/ver-1/about_eurostat/documents/AWP_2010_final.pdf)

<sup>58</sup> [http://epp.eurostat.ec.europa.eu/portal/page/portal/quality/documents/code\\_practice.pdf](http://epp.eurostat.ec.europa.eu/portal/page/portal/quality/documents/code_practice.pdf)

<sup>59</sup> For more information see

[http://epp.eurostat.ec.europa.eu/portal/page/portal/quality/code\\_of\\_practice/quality\\_framework\\_for\\_european\\_statistics](http://epp.eurostat.ec.europa.eu/portal/page/portal/quality/code_of_practice/quality_framework_for_european_statistics)



In the area of labour market statistics, European statistics are underpinned by the harmonised labour force surveys. Labour market statistics cover short-term and structural aspects of the labour market in monetary and non-monetary terms. The focus is on both the supply side i.e. labour market participation in its various dimensions, unemployment and the demand side i.e. employment, job vacancies.

The benchmark Community Labour Force Survey (LFS) was introduced in 1960 for the first time, covering the then six Member States. Subsequent countries acceding to the EU were required to implement their own survey, adopting the conventions established by Eurostat.<sup>60</sup> The new Member States which joined EU in 2004 and 2006 have fully participated in the LFS since 2000.

The availability of the data also improved markedly from 1997, when the European Employment Strategy was adopted, and there was, consequently, a clear policy need for European statistics. Results from the LFS (and other sources) are all available on-line via the Eurostat website from that year onwards. Before 1997, the information is only available in published form, mainly in Eurostat publications.

The current LFS has a legal basis,<sup>61</sup> which stipulates the main elements of the survey. Definitions used in the LFS are mostly based on internationally adopted International Labour Organization (ILO) standards.<sup>62</sup> The technical aspects of the LFS are discussed by Eurostat and representatives of the national statistical institutes and employment ministries that meet regularly at the Employment Statistics Working Group. This Working Group determines the content of the survey, the EU list of variables and the common coding of individual response categories, as well as the principal definitions to be applied for the analyses of the results.

The national statistical institutes are responsible for selecting the sample, preparing the questionnaires, conducting the direct interviews among households, and forwarding the results to Eurostat in accordance with the common coding scheme. There are 31 Labour Force Surveys conducted by the national statistical institutes across Europe and collected and disseminated by Eurostat.

#### **4.4 The cost of harmonised data at the European level**

In 2009 Eurostat employed around 900 staff. Its operational budget in 2008 amounted to EUR 45.2 million. This budget was used for the implementation of the Community Statistical Programme. In addition to its own budget, Eurostat received other budgets from other Directorate-Generals, which amounted to EUR 18.5 million in 2008 (a total of EUR 63.7 million).

The budget for the 2008-2012 Community Statistical Programme is EUR 274.2 million. The Programme supports the production, collection, and dissemination of European statistics in the Member States.

#### **4.5 The use of data in skills anticipation and matching**

The wealth of labour market statistics available at the European level is used and integrated into the existing processes and structures to anticipate skills requirements and match skills

<sup>60</sup> Walsh, K. (2009) The development of employment policy in the EU leading up to the European Employment Strategy 1997, <http://www.eu-employment-observatory.net/resources/reports/EUEmploymentPolicyBeforetheEES1997-Walsh.pdf>

<sup>61</sup> Council Regulation (EC) No 577/98 of 9 March 1998 on the organisation of a labour force sample survey in the Community, available at [http://eur-lex.europa.eu/smartapi/cgi/sga\\_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=en&numdoc=31998R0577&model=quichett](http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=en&numdoc=31998R0577&model=quichett). Subsequent revisions and amendments are available through:

[http://epp.eurostat.ec.europa.eu/portal/pls/portal/IPORTAL.wwpob\\_page.show?docname=1858272.PDF](http://epp.eurostat.ec.europa.eu/portal/pls/portal/IPORTAL.wwpob_page.show?docname=1858272.PDF)

<sup>62</sup> [http://epp.eurostat.ec.europa.eu/portal/page/portal/employment\\_unemployment\\_lfs/methodology/definitions](http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_lfs/methodology/definitions)

supply and demand. This happens through a number of channels, some of which are described below.

Cedefop (the European Centre for the Development of Vocational Training) produces regular skill supply and demand forecasts for Europe and analyses the potential labour market imbalances. The latest such forecast available '*Skills supply and demand in Europe: medium-term forecast up to 2020*'<sup>63</sup> outlines the key future trends in skills demand and supply in Europe for the next ten years. The data was drawn primarily from the Eurostat, in particular demographic data, national accounts, LFS data (described above in section 4.3), and additional data on flows of those acquiring and attaining qualifications (UOE). The LFS data in particular have been subject to considerable scrutiny and analysis and was refined to measure skills. Furthermore, the analysis of trends in the demand for and supply of skills was also based on LFS data.

Eurostat data have been used to inform the initial steps of the common foresight methodology.<sup>64</sup> This methodology requires the identification of economic activities and analysis of the main economic and employment trends and structures before drivers for change and scenarios are identified to frame discussions of changes by job function, emerging skills and knowledge requirements, a discussion of how to meet future skills and knowledge needs and the implications for education and training. Sectoral employment data and national accounts data have been used to describe the sectors and present information on value added.

Introduced in 1993, EURES – the European Employment Service is as '*an instrument to improve mobility in the European labour market*'<sup>65</sup> and a cooperation network designed to facilitate the free movement of workers within the European Economic Area.<sup>66</sup> EURES uses the labour market statistics available from Eurostat to inform analysis of the labour market situation that is presented on the EURES Job Mobility Portal that employers, job seekers and job changers can use to inform recruitment decisions or their decision to move to another country. For example the 'living and working' page<sup>67</sup> provides links to labour market information for each EURES member country including information on regional and sectoral characteristics.

#### 4.6 Lessons learned

Key lessons of relevance and suggestions for follow-up research pertinent to the Chinese situation are as follows:

- There is a wealth of knowledge in Eurostat on the infrastructure required for processing and publishing harmonised statistics that could be transferred into the Chinese context;

<sup>63</sup> <http://www.cedefop.europa.eu/EN/publications/15540.aspx>

<sup>64</sup> DG EMPL has commissioned 19 sectoral studies, in sectors sensitive to restructuring to explore anticipated change to 2020 in order to identify emerging competences and future skills needs. Further information can be found at <http://ec.europa.eu/social/main.jsp?catId=784&langId=en>

<sup>65</sup> DG Employment and Social Affairs (2004) EURES, European Employment Services, Legal Base: A collection of texts forming the legal base of EURES, December 2003, p3.

<sup>66</sup> The main objectives of EURES are: to inform, guide and provide advice to potentially mobile workers on job opportunities as well as living and working conditions in the European Economic Area; to assist employers wishing to recruit workers from other countries; and - to provide advice and guidance to workers and employers in cross-border regions.

<sup>67</sup> See <http://ec.europa.eu/eures/main.jsp?acro=lw&lang=en&catId=490&parentId=0> for further information.

- Eurostat has a legislative and operational framework that could be adapted as a framework appropriate for the collection, processing and publishing of labour market statistics in China and its regions;
- There may be merit in follow up research to further explore the technical assistance programme and associated pilot projects to identify the precise nature of the support provided to national statistical institutes.

## 5 CASE STUDY 5: PROTECTION OF “NON-STANDARD” WORKERS

### 5.1 Introduction

This case study describes the evolving concept of non-standard employment in the European Union and sets out how the European Union has sought to regulate non-standard employment. The case study deals with the role of non-standard employment in relation to the policy concept of “flexicurity”, which has attained increasing prominence in the EU labour market policy debate in recent years.

Within the EU and Chinese labour markets, there has been an increasing emergence of so-called non-standard forms of work.

In the EU, there has been a lively academic and policy debate on changing forms of employment and the respective benefits and dis-benefits. As well as the business benefits, non-standard forms of employment are seen by some commentators as a valuable stepping stone into more standard forms of employment, particularly for vulnerable groups who would otherwise find it difficult to access employment. That said, it is recognised that significant numbers of workers do remain in transitional employment, which affects their employment and income security, as well as their long-term employability and prosperity.

Those expressing concern over the spread of non-standard forms of employment fear that, as such employment is more wide-spread among low skilled and younger workers it has particularly damaging effect on a particularly vulnerable segment of the labour market, perpetuating disadvantage and increasing the risk of social exclusion by restricting access to better protected and potentially more highly remunerated employment and access to training and career advancement<sup>68</sup>.

It is generally accepted that standard employment relationships do not and will no longer provide the same employment security (job for life) as may have once been the case. However, many of the terms and conditions of employment, associated social security and other benefits remain linked to the standard employment relationship and job tenure. The EU policy debate and legislative intervention has therefore focussed on balancing flexibility with security (the so-called flexicurity concept), by concentrating on employability and ensuring basic social and employment rights.

### 5.2 Definitions of non-standard and informal work and its share in employment

#### 5.2.1 *Informal employment in China*

There are some significant differences in EU definitions of non-standard work and China’s concept of informal work. Both definitions demonstrate the complexity of an evolving situation that covers many aspects of non-standard working relationships. The CASS Part One report on the situation in China defines an informal worker as one “*who has a wage employment without signing contract with an employer or who is self-employed as worker in [the] informal sector*”. It also emphasises that “*the informalisation of [the] labour market is mainly reflected by the fact that more and more people are employed in informal sectors, or employed as informal workers in formal sectors*”. From an EU perspective, elements of this definition could be considered more reminiscent of undeclared work (defined as work which is not illegal in its nature, but is not declared to public authorities for tax and social security calculation purposes) rather than atypical work. However, the reference to non-contracted

<sup>68</sup> Esping-Andersen, G and Regini, G.M (2000); Why deregulate labour markets; Oxford University Press; OECD (2006); Social implications of policies aimed at raising employment; OECD Employment Outlook 2006, Paris; and Lyly-Yrjänäinen, M; Eurofound (2008); Who needs up-skilling? Low skilled and low qualified workers in the European Union

and self-employment, as well as family employment also has relevance in the EU policy debate on atypical work.

In China, the policy debate has been focussing on informal employment, defined as work done by individuals commanding a wage without signing a contract of employment or who are self-employed in the informal sector. The informal sector is largely defined as consisting of small and family run enterprises, which largely escape the control of employment regulation. Data from China show that so-called “informal” employment has been increasing as a result of the country’s economic marketisation and increasing liberalisation, with the share of informal employment reaching 32.6% among local workers and 84.3% among migrant workers in 2005<sup>69</sup>.

Two concepts in the EU policy debate are relevant to this definition: undeclared work and non-standard employment. The former relates to work which is not illegal in its nature, but is not declared to public authorities for tax and social security calculation purposes. Non-standard employment generally relates to any form of employment which diverges from the “norm” of full-time, open-ended employment contracts. This case study focuses on the latter.

### 5.2.2 *Different forms of non-standard employment in the EU*

The EU has also seen an evolution of the debate on atypical employment and its definition, largely as a function of the development of such forms of employment and their regulation.

**Standard employment** is generally defined as full-time work on open-ended contracts.

**Atypical employment** is usually defined as fixed-term, part-time and temporary agency work. The first two are essentially adaptations of the standard working relationship, defined by the duration of the employment relationship and the number of hours worked. The third essentially departs from the standard working relationship because of the triangular contractual relationship between the temporary agency (the employer), the company where work is carried out (the workplace) and the worker.

Over the years, the term “atypical employment” has increasingly become a misnomer for these forms of work, as they have become more common. In the EU today, around 18.5% workers are employed part-time and the vast majority of them are women. Data from the European Working Conditions Survey suggests that around 15% of individuals working part-time do so because they could not find a full-time job (i.e. their part-time work is involuntary). An additional 22% would like to work more hours than they currently do. Considerations such as the availability and affordability of child or elder care can factor into whether and individual would consider working longer hours. Around 14.5% of workers are employed on contracts of limited duration, indicating that these forms of employment can no longer be easily described as being atypical, although the definition is retained in the academic and policy debate.

Partly as a result of the increasing regulation of these forms of atypical employment, the debate has begun to shift towards discussing the incidence and impact of “**very atypical contractual arrangements**”<sup>70</sup>. The category of “very atypical” employment is considered to cover:

<sup>69</sup> CASS Part One (2010); Economic Development, Labour Market Transition and Demand for New Skills; pp.14.

<sup>70</sup> Broughton, A.; Billela, I; and Kullander, M. (2010) Flexible form of work: “very atypical” contractual arrangements; Comparative review for Eurofound; <http://www.eurofound.europa.eu/ewco/studies/tn0812019s/tn0812019s.htm> and Riso, S. (2010); Very atypical work: Exploratory analysis of fourth European Working Conditions Survey, Eurofound; <http://www.eurofound.europa.eu/publications/htmlfiles/ef1010.htm>

- Very short fixed-term work of less than six months (which also includes very short temporary agency work);
- Very short part-time work of less than 10 hours per week; and
- Non-contract work.

Regarding the share of very atypical employment, a recent report<sup>71</sup> identified that in addition to an increasing trend in temporary agency employment, around 32% of agency workers hold contracts of less than 6 months' duration.<sup>72</sup> The same report showed that in EU27 some 2% of employees regularly work less than 10 hours per week and a significant proportion of this group report having no contract of employment. Employees without a contract of employment account for 7% of all employees in employment. Significant variations exist between countries, with some Member States having more than 30% of such employment.

The report concluded that on the basis of their data, 76% of all employees work in standard employment, 14% in atypical employment and 6% in very atypical employment in EU-27. Workers aged 15-29 are most likely to be in very atypical contracts (21.5%), followed by women aged 50+ (14%) and men aged 30-49 (13%). Very atypical workers are significantly more likely to be low paid (46% compared to 18% among employees in standard employment relationships) and have low educational standards (primary education or less). Very atypical employment is most prevalent in the hotel and catering and agriculture and fisheries sectors (33% and 35% respectively). These findings are consistent with the view that particularly vulnerable groups are those most affected by non-standard employment, thus entrenching their vulnerability and contributing to an increasingly segmented labour market.

### 5.3 Ensuring the protection of non-standard workers

#### 5.3.1 *The concept of flexicurity*

The 2007 Commission Communication "Towards common principles of Flexicurity: More and better jobs through flexibility and security" (COM(2007) 359 final) defines flexicurity as "*an integrated strategy to enhance, at the same time, flexibility and security in the labour market*".<sup>73</sup>

There are two dimensions of flexibility relevant to flexicurity: external and internal flexibility. External flexibility concerns labour market flexibility covering successful transitions during an individual's life course (for example from school to work, from one job to another, from unemployment or inactivity into work and from work into retirement). Internal flexibility concerns: flexible work organisation; individual capability in adapting to the new skills and requirements of the market or service users; and the changing requirements of individual workers over their life course, for example in order to balance work and family life.

The security aspect of flexicurity is increasingly about equipping individuals with the skills and capacities to progress in their careers or to find new employment. It concerns ongoing training both within and outside the workplace, active labour market policies and social protection systems adequately equipped to support and encourage transitions in working life. Thus the emphasis is increasingly on *employment* security rather than *job* security. It is also emphasised that those in non-standard employment should be provided with better

<sup>71</sup> Riso, S. (2010); Very atypical work: Exploratory analysis of fourth European Working Conditions Survey, Eurofound; <http://www.eurofound.europa.eu/publications/htmlfiles/ef1010.htm>

<sup>72</sup> It is worth noting that the 2008 Directive on the Rights of agency workers will provide equal treatment after 12 weeks, unless otherwise provided for in collective agreements.

<sup>73</sup> See <http://ec.europa.eu/social/main.jsp?catId=102&langId=en&pubId=188&type=2&furtherPubs=yes>

opportunities, economic incentives and supportive measures to be able to progress into more stable and legally secure employment. Greater labour market flexibility should be accompanied by measures to ensure more secure transitions from job to job.

At the same time it is also an approach that recognises that each Member State has a specific economic and labour market situation, organisational and cultural framework and that there can be no “one size fits all” approach. Member States therefore create their own “pathways” towards improving their country’s performance in relation to flexicurity within the context of wider reform programme.

Member States and the Commission agree that flexicurity policies can be designed and implemented through an appropriate mix of four policy components:

- **Flexible and reliable contractual arrangements through modern labour laws, collective agreements and work organisation;**
- **Comprehensive lifelong learning (LLL) strategies to ensure the continual adaptability and employability of workers, particularly the most vulnerable;**
- **Effective active labour market policies (ALMP) that help people cope with rapid change, reduce unemployment spells and ease transitions to new jobs; and**
- **Modern social security systems that provide adequate income support, encourage employment and facilitate labour market mobility.**

The implementation of the concept has also been seen in the recent economic challenges facing EU economies. Recovery measures taken by Member States tend to be in line rather than in opposition with the flexicurity approach. Several Member States have strengthened unemployment insurance systems, in terms of benefits' levels, duration and coverage. Active labour market policies, training and Public Employment Services (PES) have also been reinforced. Measures to support labour demand via reduced social security contributions ('make work pay' policies) have been introduced or stepped up. Finally, internal (working time) flexibility has been reinforced in some Member States through Short-Time Working Arrangements (STWA) as a way to preserve jobs in firms facing temporary drops in demand. The combination of these STWAs with training (a typical flexicurity-type measure) appeared to be an effective means of fighting rising unemployment while maintaining human capital for the upturn. Taken together, these measures go in the direction of reinforcing all four policy pillars of flexicurity, showing that the latter has helped in weathering the crisis better and that those countries which have implemented it look poised to emerge faster and more strongly.

Flexicurity is a concept which is highly relevant to ensuring the availability - but at the same time protecting workers on non-standard contracts. The importance of flexicurity was recognised by representatives of employers and trade unions in their joint analysis of key challenges facing the EU labour market.<sup>74</sup>

### **5.3.2 *The formulation of EU labour legislation and the role of the social partners in the policy process***

EU decision making in relation to new labour legislation to govern all Member States is characterised by the important role played by representatives of employers and trade unions (the so-called social partners). At EU level, social partner organisations are active at cross

<sup>74</sup> BusinessEurope, ETUC, UEAPME and CEEP (2007); Joint Analysis of Key Challenges Facing the EU Labour Market; [http://www.ueapme.com/docs/pos\\_papers/2007/071018\\_cross\\_key\\_challenges.pdf](http://www.ueapme.com/docs/pos_papers/2007/071018_cross_key_challenges.pdf)

sectoral (covering the whole labour market) and sectoral levels. At cross sectoral level, separate organisations represent private sector employers, public service employers, small and medium sized enterprises, trade unions and managerial employees. More than 70 European organisations represent social partners in 35 sectoral social dialogue processes.

The social partners have played an important role in policy consultations since the 1980s through a formalised social dialogue processes, taking place both at tripartite and bipartite level (as well as at sectoral and cross-sectoral levels identified above). Since the Maastricht Treaty of 1992, their role has been further enhanced by becoming enshrined in the Treaties, with their fundamental role in framing EU legislation set out in Articles 138<sup>75</sup> and 139<sup>76</sup> of the EU Treaty.

This effectively means that before the European Commission can make any proposal for a law in the labour or social field it has to consult employer and trade union organisations on their views. The social partners can then decide whether or not to open autonomous negotiations on the issue, effectively allowing them to shape new EU labour and social legislation, should they so chose. It is only if social partners decide not to open negotiations, or if such negotiations fail, that the European Commission can proceed to make a legislative proposal for decision by the European Council and Parliament. Social partner negotiations can either lead to agreements being implemented by Council Directive or through processes common to social partners at national level.

### 5.3.3 ***Existing legislation and legislative proposals aimed at protecting non-standard workers***

Efforts to regulate atypical work in the European Union date back nearly two decades.

Draft Directives on part-time work and temporary working were prepared by the Commission in 1981 and 1982 respectively, but failed to make any progress in the European Council<sup>77</sup>. In 1989, these discussions were given an additional boost by the adoption of the European Charter of Fundamental Social Rights of Workers, which again called for the better regulation of atypical work and the equitable treatment of workers on such contracts. By this time, the numbers of individuals in these forms of employment had increased significantly adding further impetus to the debate. With the inclusion of articles 138 and 139 (themselves based on a social partner agreement) in the Maastricht Treaty, the way was opened for social partners to start negotiations on these issues, following a further consultation by the European Commission on “flexibility in working time and security for workers” in 1995. A framework agreement on ***part-time work*** was signed by the cross-sectoral social partners in June 1997 and was implemented in Council Directive 97/81/EC. In March 1999, the social partners reached a framework agreement on the ***rights of workers on fixed term contracts*** which later became Council Directive 1999/70/EC.

Progress on legislation on agency workers was much slower. It took more than a decade and failed social partner negotiations to reach agreement on Directive 2008/104/EC on the ***rights of temporary agency workers***.

Viewed from the context of the flexicurity debate, the goal of these pieces of legislation has been to ensure security for the rising number of employees on such contracts while not unduly restricting access to such flexible form of employment. The ethos behind all three Directives is essential to provide for equal (pro-rata) rights for individuals on these atypical

<sup>75</sup> See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12002E138:en:HTML>

<sup>76</sup> See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12002E139:EN:HTML>

<sup>77</sup> The European Council brings together Member State representatives. It can be either a meeting of heads of state or a Council of specific government departments responsible for different thematic areas.



contracts (in the case of agency workers, this relates to equal rights with comparable workers in the undertaking where the worker is placed).

No specific measures have yet been taken to address the rights of workers on very atypical contracts, although the possible need for action in this area was highlighted by the 2007 European Commission Green Paper on Labour Law.<sup>78</sup>

With regard to **self-employed workers** and **family workers**, the European Council reached agreement on 8<sup>th</sup> March 2010 on a draft Directive put forward by the European Commission in 2009 on the social protection rights of self-employed workers and assisting spouses<sup>79</sup>. The draft Directive seeks to extend rights to maternity allowance to self-employed women, assisting spouses and life partners of self-employed workers. While not strictly linked to employment conditions and protection, this Directive would extend the scope of social protection for many self-employed workers and assisting spouses.

#### 5.4 Lessons learned

Despite the definitional differences, it is clear that both the EU and China are facing challenges relating to the increase in non-standard forms of working. Two concepts and approaches have emerged as particularly valuable in the European Union, which could be adapted to the Chinese situation. These are:

- The flexicurity approach; and
- Providing a platform for the labour market parties, employers and trade unions, in informing and shaping labour market regulation.

While still (and indeed constantly) under development, the flexicurity approach appears to indicate the way forward to allow economies to benefit from a flexible workforce, while at the same time ensuring appropriate levels of security for workers. It is important to note that the flexicurity concept not only relates to employment protection legislation and social security protection, but also emphasises the importance of lifelong learning and active labour market policy. The latter are particularly relevant in ensuring an adaptable workforce, which can further boost national competitiveness.

In the EU, the role of the social partners has been critical to the formulation of labour legislation which suits the requirements of employers while also meeting the needs for equity and protection legitimately demanded by workers. While the structure of social dialogue may be particular to EU systems, the involvement of the labour market parties in decision making is considered important in many countries. It has to be acknowledged that trust underpins the relationship between social partners and is necessary to ensure effective co-operation in negotiations and in policy making. The development of trust can be difficult and time consuming to achieve hence is an important element of any developmental processes that allows such cooperation in policy making.

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<sup>78</sup> <http://ec.europa.eu/social/main.jsp?catId=157&langId=en>

<sup>79</sup> Council of the European Union, Press release 8.3.2010; [http://www.consilium.europa.eu/uedocs/cms\\_Data/docs/pressdata/en/lsa/113208.pdf](http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/lsa/113208.pdf)

## ANNEX 1 – CASE STUDIES: SUPPLEMENTARY DATA

### EU vocational training systems

There are different types of vocational training systems in Europe, reflecting substantial differences in the regulation of education and training systems, their links with the labour market, the reputation of vocational education and training (within the country context) and the organisation of the labour markets (see Table 1 below).

**Table 1 – Different types of vocational education systems in Europe**

<i>Type of VET system</i>	<i>Countries</i>
Apprenticeship-based	Austria, Germany
Continental school-based (where VET is provided in schools, employer involvement is important)	Netherlands, France
Market-led (where VET provision is determined mostly by choice and competition in the VET systems with varied employer involvement and where government involvement has traditionally been low)	UK, Ireland
General education (where VET systems are less developed and mainly integrated into the general education provision)	Greece, Spain, Poland, Hungary
Egalitarian school-based (where VET takes place primarily in schools and is widely available and accessed)	Finland, Sweden

*Source:* Bosch and Charest (eds.), 2010.<sup>80</sup>

In countries with apprenticeship based systems (e.g. Austria, Germany and Denmark), these can help keep youth unemployment low, evident in Austria and Germany where the rise in youth unemployment in the twelve months to February 2010 has been low. Fast, but often unsustainable transitions tend to be experienced in the market led systems identified in Table 1, though the most difficult transitions tend to be found in countries dominated by general education systems and high levels of Employment Protection Legislation (EPL).

The purpose of this part of the case study is to explore the experience of countries with strong-established apprenticeship-based systems, where apprenticeships are well-regarded and well-established (i.e. Austria and Germany). Table 2 shows that take up of these combined school and work based apprenticeships programmes is significantly higher in the countries offering apprenticeship based systems than in the other VET systems in Europe.

<sup>80</sup> Bosch, Gerhard and Charest, Jean (eds.), 2010, Vocational training: international perspectives. New York [u.a.]: Routledge. Routledge studies in employment and work relations in context.

**Table 2 – Upper secondary education enrolment rates**

<b>Population that has Attained Upper Secondary Education and Upper Secondary Enrolment Rates by Orientation of Programmes (2006)</b>			
	<i>Upper secondary enrolment rates*</i>		
	<i>General programmes</i>	<i>Vocational programmes</i>	
		<i>All programmes</i>	<i>Of which: combined school and work based</i>
<b>Apprenticeship-based</b>			
Austria	22.7	77.3	<b>33.3</b>
Germany	42.6	57.4	<b>42.2</b>
<b>Continental school-based</b>			
Netherlands	32.4	67.6	18.5
France	56.2	43.8	12.1
<b>Market-led</b>			
UK	58.6	41.4	m
Ireland	65.5	34.5	2.2
<b>General Education</b>			
Greece	68.3	31.7	a
Spain	56.6	43.4	1.9
Hungary	76.4	23.6	13.2
<b>Egalitarian School-based</b>			
Sweden	42.9	57.1	a
Finland	33.3	66.7	11.5

Source: Bosch and Charest (eds) 2010, based on OECD (2009), Education at a glance Table C1.4

Note:\*Percentage of upper secondary graduates in the population at the typical age of graduation by programme orientation. m = missing; a = not applicable.

**Table 3 – Main labour market statistics available in Eurostat**

Area of labour market statistics	Main indicators	Source
Employment and unemployment	Employment rate, by highest level of education attained Employment growth by gender Employment rate by gender Employment rate of older workers by gender Persons employed part-time - Total Employees with a contract of limited duration (annual average) Employed persons with a second job Hours worked per week of full-time employment Hours worked per week of part-time employment Unemployment rates of the population aged 25-64 by level of education Unemployment rate by gender, age and gender/age Long-term unemployment rate, by gender	Labour Force Survey
Job vacancies	Job vacancy annual and quarterly data, numbers and vacancy rates	Data from the national statistical institutes (surveys)
Earnings	Average gross annual earnings in industry and services, by gender Tax wedge on labour cost Tax rate on low wage earners by marginal effective tax rates on employment incomes Gender pay gap in unadjusted form Minimum wages	Structure of earnings survey
Labour costs	Labour cost index Total wages and salaries Social security paid by employer Other labour costs Hourly labour costs Monthly labour costs	Labour cost surveys The data are also estimated by the National Statistical Institutes on the basis of available structural and short-term information from samples and administrative records for enterprises of all sizes
Labour market policy	Public expenditure on labour market policies, by type of action Public expenditure on labour market policy measures, by type of action Public expenditure on labour market policy supports, by type of action Participants in labour market policy measures, by type of action Beneficiaries of labour market policy supports, by type of action Persons registered with Public Employment Services	Eurostat's labour market policy (LMP) database
Labour disputes	Number of working days lost Working days lost per 1000 workers Number of workers involved Workers involved per 1000 workers	The data sources vary according to country. The most common data sources are trade unions, social security officers, employers' confederations and employment offices.

**Table 4 – Key principles and indicators in the European Statistics Code of Practice**

<b>Area</b>	<b>Principles</b>	<b>Good practice indicators – examples</b>
Institutional environment	1 – Professional independence	Independence is specified in law
	2 – Mandate for data collection	Mandate for data collection is specified in law
	3 – Adequacy of resources	Scope, detail and cost of European statistics commensurate with needs
	4 – Quality commitment	Processes are in place to monitor the quality of collection, processing and dissemination of statistics
	5 – Statistical confidentiality	Confidentiality is guaranteed in law
	6 – Impartiality and objectivity	All users have equal access to statistical releases
Statistical processes	7 – Sound methodology	Procedures are in place to ensure that standard concepts, definitions and classifications are consistently applied
	8 - Appropriate statistical procedures	Survey designs, sample selections and sample weights are well based and regularly revised, reviewed and updated
	9 – Non-excessive burden on respondents	The range and limit of European statistics is limited to what is absolutely necessary
	10 – Cost effectiveness	Internal and independent external measures monitor the use of resources
Statistical output	11 – Relevance	Priority needs are being met and are reflected in the work programme
	12 – Accuracy and reliability	Source data, intermediate results and statistical outputs are assessed and validated
	13 – Timeliness and punctuality	Standard daily time is set for release of European statistics
	14 – Coherence and comparability	Statistics are internally coherent and consistent
	15 – Accessibility and clarity	Access to microdata is allowed for research purposes and is subject to strict protocols

Source: European Statistics Code of Practice.

