



## ANALYTICAL HIGHLIGHT

PROSPECTS FOR  
**Croatia**

- Croatia's employment rate was 57.2% in 2013 – lower than both the national target of 62.9% and the EU-28 target of 75%.<sup>1</sup>
- Coming out of a six-year recession, 28,000 additional jobs are expected to be created in construction, manufacturing and ICT by 2020.
- Vocational and tertiary education graduates face difficulties in making the transition to work due to mismatches in subjects studied and outdated curricula.

**Very low employment rate as a result of six years in economic recession**

The employment rate was 57.2% in Croatia in 2013, a considerable distance from 2008 employment rate and the national 2020 target, both at 62.9%.<sup>2</sup> Croatia experienced its fifth consecutive year of economic recession in 2013 with further economic contraction experienced in 2014. A slow recovery is forecasted for 2015.<sup>3</sup>

Although there was an 8.7% increase of vacancies in 2013 compared to 2012 reported by the Croatian Employment Service (CES), this increase did not result in an associated increase in overall employment. This trend was expected to hold in 2014.

Manufacturing jobs accounted for more than a sixth (17.1%) of total employment in Croatia in 2013 with the majority of these in medium- or low-tech manufacturing. In 2012, only 4.5% of manufacturing jobs were in high-technology occupations, with about half (49.1%) of manufacturing jobs in low-technology occupations, 18.5% in medium high technology and 27.9% in medium low technology occupations.

Jobs in retail and wholesale trade (including repair of motor vehicles and motorcycles) made up nearly a sixth (15.2%) of total employment in 2013, followed by jobs in public administration and defence and compulsory social security (8.5%), education (8.0%), health and social

care (7.1%), catering and tourism (7.0%)<sup>4</sup>, construction (7.0%), and information and communication (2.5%)<sup>5</sup>. The geology, mining, oil and chemical technology sector is relatively small with regard to total employment (2.7%), however, the sector accounts for 7.5% of the total profit realised by the Croatian economy.<sup>6</sup>

The largest relative decline in employment in the period 2008-2012 occurred in mining and quarrying (-36.5%), followed by construction (-27.4%), and the manufacturing sector with a drop in employment of 16.7%. Employment in construction is expected to decline further.<sup>7</sup>

While most sectors contracted between 2008 and 2012, real estate and administrative and support service activities experienced substantial growth during this period. These sectors grew by 21.1% and 13.5% respectively.<sup>8</sup>

<sup>1</sup> The national EU2020 target refers to the age group 20-64.

<sup>2</sup> Eurostat (2014), 20-64 age group

<sup>3</sup> IMF (2014), Republic of Croatia, 2014 Article IV Consultation – Staff Report, IMF Country Report No. 14/124 <http://www.imf.org/external/pubs/ft/scr/2014/cr14124.pdf>

<sup>4</sup> Croatian Tourism Development Strategy until 2020 <http://www.mint.hr/UserDocImages/Strategija-turizam-2020-editfinal.pdf>

<sup>5</sup> Croatian Employment Service (2013), Yearbook 2013

<sup>6</sup> Agency for VET and adult education (2012), Sector profile geology, mining, oil and chemical technology

<sup>7</sup> Agency for VET and adult education (2012), Sector profile construction and geodesy

<sup>8</sup> Ministry of Economy (2014), Industrial Strategy of Republic of Croatia 2014-2020 [www.mingo.hr/userdocimages/industrija/Industrijska\\_strategija.docx](http://www.mingo.hr/userdocimages/industrija/Industrijska_strategija.docx)

▼ Table 1 – Five occupations with the highest and the lowest re-employment rates in 2013 by educational level

Secondary level education	Re-employment rate	Tertiary level education	Re-employment rate
▼ Occupations with the highest re-employment rates		▼ Occupations with the highest re-employment rates	
• Fire technician	43.4%	• Biology and chemistry	67.6%
• Cook	41.5%	• Teachers	62.0%
• Waiter	40.1%	• Croatian and English language	57.7%
• Confectioner	39.7%	• Croatian and Italian language	56.4%
• Textile worker	39.1%	• History and Croatian language	51.7%
▼ Occupations with the lowest re-employment rates		▼ Occupations with the lowest re-employment rates	
• Associate in education	22.8%	• Journalist	21.2%
• Spinner	22.6%	• Animal husbandry	21.2%
• Radio and TV electrician	22.5%	• Graphic designer	19.7%
• Chemical-technological professional worker	21.9%	• Geologist	19.1%
• Stockman	21.8%	• Political scientist	19.0%

Source: Croatian Employment Service (2013), Yearbook 2013

## Manufacturing, construction and ICT occupations expected to grow

The Ministry of the Economy’s Industrial Strategy 2014-2020<sup>9</sup> foresees the creation of 28,000 additional jobs by the end of the decade through growth in the manufacturing, construction and information and communication sectors. In more detail, the strategy identified the following industrial activities to have the greatest potential for growth and job creation:

- manufacturing of basic pharmaceutical products and preparations;
- manufacturing of computer, electronic and optical products;
- manufacturing of fabricated metal products;
- manufacturing of electrical equipment;
- manufacturing of machinery and equipment; and
- computer programming, consultancy and related activities (ICT).

In addition, manufacturing of food products and manufacturing of furniture are highlighted in the strategy as having potential to create new jobs.

Croatia does not currently have a mechanism which utilises labour market information to forecast needs in occupations and skills.<sup>10</sup> In the absence of forecasting system, re-employment rates<sup>11</sup> by occupation offer some indication of current supply and demand for particular occupations. Table 1 shows the five occupations with the highest and the lowest re-

employment rates in 2013 by educational level<sup>12</sup>, as reported by CES. Catering professionals with secondary-level education and tertiary graduates of Croatian language degrees had high re-employment rates in 2013.

Comparing 2013 with 2012, the largest increase in re-employment rates was recorded for engineers, technicians and related occupations (17.3%), office employees (14.9%), and service workers and trade occupations (13.5%). Reduced re-employment was observed only for workers in manual occupations (0.7%).<sup>16</sup>

## Mismatches in supply and demand of skills resulting in low graduate employability; actions to improve alignment featuring in policy

Croatia performs well in participation in education and training, with a very low rate of early leavers of 4.5% compared to 12.0% for the EU28 in 2013.<sup>13</sup> Participation in vocational education in 2012 was one of the highest in the EU at 71.3% and considerably higher than the EU28 at 50.4%.<sup>14</sup> The Croatian education system also performs well in terms of basic skills of 15 year-olds who performed better than the EU28 average in reading, mathematics and science in the 2012 PISA assessment.<sup>15</sup>

<sup>9</sup> Ibid.

<sup>10</sup> Bejakovic P., Mrnjavac Z. (2014), Skill mismatches and Anticipation of the Future Labour Market Need: The Case of Croatia, Zagreb International Review of Economics & Business, Vol. 17, No. 1, pp. 47-68.

<sup>11</sup> Defined as the percentage of people with a particular occupational background who were unemployed at some point during the year and who found a job in their occupation during the year.

<sup>12</sup> Ibid.5

<sup>13</sup> Eurostat (2013), Labour Force Survey

<sup>14</sup> Eurostat (2012), Education and Training database

<sup>15</sup> OECD (2013), PISA 2012

Higher education in Croatia, however, is characterised by high drop-out rates (40% – estimated to be among the highest in Europe<sup>16</sup>), lengthy study periods and unequal access to higher education<sup>17</sup>. As such only a quarter (25.6%) of 30-34 year olds had completed a tertiary education qualification in 2013; compared to 36.9% for the EU28 and the national target of 35%.<sup>18</sup>

Despite high participation, graduates of both VET and tertiary education programmes face difficulties in making the transition from education and training into work and thus face higher unemployment rates compared to graduates in other EU countries. Across the system, there appears to be a mismatch between outdated VET and HE curricula and skills, knowledge and competences required by the labour market.<sup>19</sup> There is also evidence of mismatches in subjects studied at tertiary level; the analysis of the Croatian Employment Service 2014 identified a shortage in graduates in the fields of medicine, mathematics, electrical engineering, mechanical engineering and computer science, and English and German language while it also identified (in most Croatian regions) an oversupply of young people with qualifications in economics and law.<sup>20 21</sup>

Ensuring that education system outputs match labour market needs has been highlighted as an area where action is needed in Croatia. The European Commission's Country Specific Recommendations on Croatia's National Reform Programme 2014 and Croatia's 2014 Convergence Programme refer to the necessity "to implement measures to improve the labour market relevance and quality of education outcomes by modernising the qualification systems, by putting in place quality assurance mechanisms and by improving school-to-work transitions, notably through strengthening vocational education and work-based learning".<sup>22</sup>

Actions to improve alignment of supply and demand of skills and competencies and creating the appropriate infrastructure to do so have featured in Croatian strategy documents. The 2014-2020 Science, Education and Technology Strategy includes provision for developing a methodology to forecast future needs for knowledge, skills and qualifications aligned with economic goals and demographic and migratory changes.<sup>23</sup> The Industrial Strategy 2014-2020<sup>24</sup> envisages the development of a planning system which aligns the human resource needs of the industry with skills development in education in cycles of 10 years. As such, creating structures to foster strategic cooperation between industry and the education system is one of the priority areas and operational measures of the strategy, with a particular focus of improving alignment for skills needs for the new technologies and the

'green economy', i.e. skills in line with the six priority areas of EU industrial policy: (1) advanced manufacturing, (2) key enabling technologies, (3) clean vehicles and transport, (4) bio-based products, (5) construction and raw materials and (6) smart grids. ■

<sup>16</sup> Institute for the Development of Education (2012), Social and Economic Conditions of Student Life in Croatia, National Eurostudent Report for Croatia [http://www.tempus-access.info/english/wp-content/uploads/2011/06/EUROSTUDENT\\_National\\_report\\_Croatia\\_2011\\_web1.pdf](http://www.tempus-access.info/english/wp-content/uploads/2011/06/EUROSTUDENT_National_report_Croatia_2011_web1.pdf)

<sup>17</sup> European Commission (2014), Education and Training Monitor 2014 Croatia, DG Education and Training [http://ec.europa.eu/education/tools/docs/2014/monitor2014-hr\\_en.pdf](http://ec.europa.eu/education/tools/docs/2014/monitor2014-hr_en.pdf).

<sup>18</sup> Eurostat (2013), Labour Force Survey

<sup>19</sup> Ibid.16

<sup>20</sup> Croatian Employment Service (2014), public presentation of the analysis of the labour market needs on 14.01.2014.

<sup>21</sup> Article from HINA (Croatian News Agency), In Croatia, occupations in the field of medicine, mathematics, computer science are needed, 14.01.2014.

<sup>22</sup> [http://ec.europa.eu/europe2020/pdf/csr2014/csr2014\\_croatia\\_en.pdf](http://ec.europa.eu/europe2020/pdf/csr2014/csr2014_croatia_en.pdf)

<sup>23</sup> Science, Education and Technology Strategy (2014)

<sup>24</sup> Ibid.8



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