

12. REGIONAL SPECIALISATION IN KNOWLEDGE-ORIENTED SECTORS

Knowledge-oriented sectors receive a great deal of attention due to their association with innovative products, new production processes and their impact on productivity growth and international competitiveness.

Individuals employed in knowledge-oriented sectors are often in research and development (R&D) positions, increasing scientific knowledge and using it to develop products and production processes; others apply technology in other activities, including the design of equipment, computer applications; marketing; quality management. All these activities are classified into two groups: *high-tech manufacturing* (HTM) and *knowledge-intensive services* (KIS).

High-tech manufacturing and knowledge-intensive services have a tendency to be concentrated in certain regions since investments, infrastructure, and physical and human capital, tend to be geographically clustered. In several countries one region appears to be leading in the share of knowledge-oriented employment. Baden Wuerttemberg in Germany is the region with the highest rate of employment in HTM, almost ten points higher than the country average (Figure 12.1).

The regions with the highest share of employment in KIS are almost all capital regions where the bulk of public administrations and services tend to be concentrated. Stockholm has the highest rate of KIS followed by London. Particularly low is the KIS employment in the Korean Capital region and in Ankara, around 24% (Figure 12.2).

Regional catching-up processes are taking place in high-tech manufacturing employment and new regional hubs have been emerging in the past ten years. With the exception of Zuid Netherland in the Netherlands, Lansi Suomi in Finland and Vzhodna Slovenija in Slovenia, regions increasing their specialisation in HTM faster over time are not showing the highest percentage of HTM in levels in 2008 (Figure 12.3).

About half of the fast-specialising regions are still more specialised in total manufacturing than in high-tech manufacturing (Figure 12.3). Comparative analysis could help identify which policies can accelerate this transition from traditional manufacturing into more technology-intensive manufacturing.

Definition

Employment in knowledge-oriented sectors is defined as employment in high-technology manufacturing sectors and knowledge-intensive services.

Employment in high-technology manufacturing sectors corresponds to the following ISIC Divisions/Groups/Classes: 2423 Manufacture of pharmaceuticals, medicinal chemicals and botanical products, 30 Manufacture of office machinery and computers, 32 Manufacture of radio, television and communication equipment and apparatus, 33 Manufacture of medical, precision and optical instruments, watches and clocks, 353 Manufacture of aircraft and spacecraft. It is to be noted that these classes included both high-tech and medium high-tech manufacturing activities.

Employment in knowledge-intensive services includes employment in the following ISIC divisions: 61 Water transport, 62 Air transport, 64 Post and telecommunications, 65 Financial intermediation, except insurance and pension funding, 66 Insurance and pension funding, except compulsory social security, 67 Activities auxiliary to financial intermediation, 70 Real estate activities, 71 Renting of machinery and equipment without operator and of personal and household goods, 72 Computer and related activities, 73 Research and development, 74 Other business activities, 80 Education, 85 Health and social work and 92 Recreational, cultural and sporting activities.

A region's degree of specialisation in an industry is measured according to the Balassa-Hoover index which is computed as the ratio between the weight of an industry in a region and the weight of the same industry in the country. Values of the index above 1 reflect a specialisation higher than the national average.

Source

OECD Regional Database: <http://dotstat/wbos/>.

See Annex B for data, source and country-related metadata.

Reference years and territorial level

1995-2008; TL2.

No regional data available in Australia, Iceland, Mexico and New Zealand.

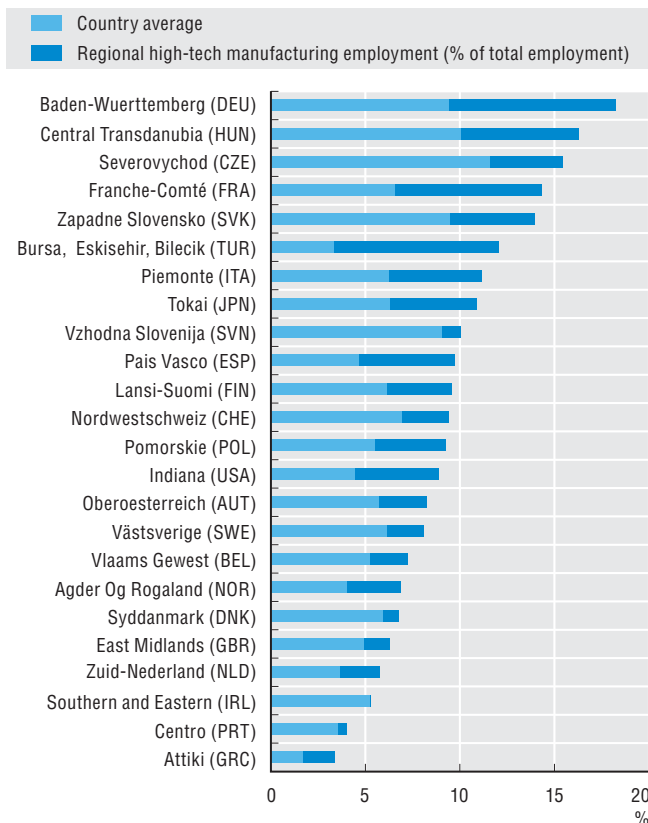
Figure notes

12.1-12.2: Latest available year: Japan 2006, Poland, Sweden and Slovak Republic 2007.

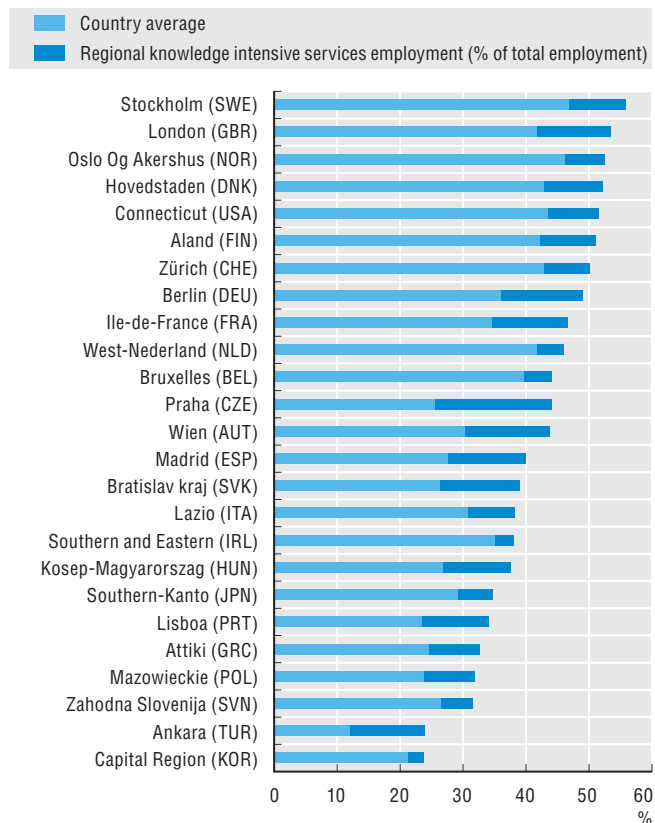
12.2: No regional data available on KIS employment in Korea.

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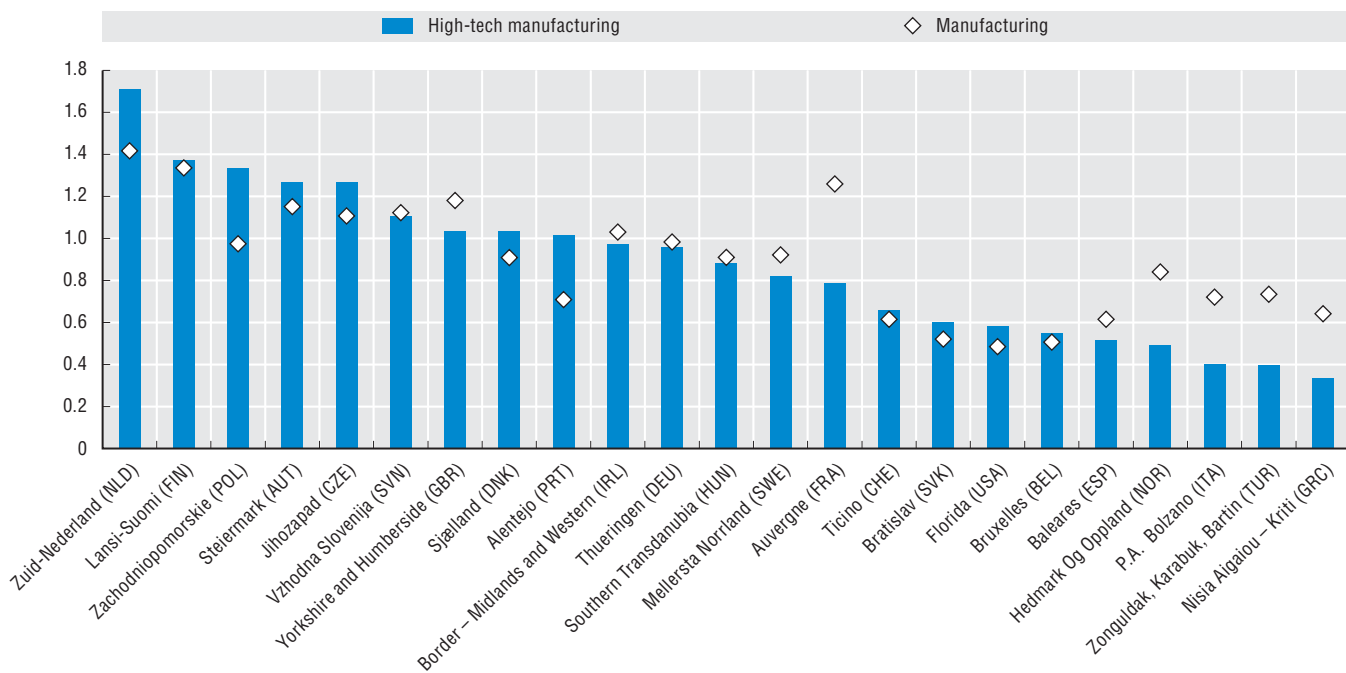
12.1. Regions with the highest share of high-tech manufacturing employment, 2008



12.2. Regions with the highest share of knowledge-intensive services employment, 2008



12.3. Specialisation index in 2008 of the region with the largest increase in specialisation in HTM from 1995 to 2008





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