

MEXICO

Mexico's economy is undergoing structural change. Key challenges include improving the education system, upgrading infrastructure, modernising labour laws and fostering private investment in the energy sector. Innovation can play an important role in all these areas.

R&D intensity in Mexico is the lowest in the OECD area, with gross expenditure on R&D (GERD) at 0.4% of GDP in 2007; it has fluctuated around this level since 2000. GERD per capita is also the lowest in the OECD. Real GERD, however, grew at a robust average annual 6% between 2000 and 2005, before falling by -1.7% in 2006 and recovering with weak growth of 0.14% in 2007. A relatively low 45% of GERD was funded by industry in 2007; the government financed 50%, down from 63% in 2000. Industry-financed GERD was 0.2% of GDP in 2007, slightly above the average. Business expenditure on R&D (BERD) was 0.2% of GDP, having doubled from 0.1% in 2000. Mexico's business-financed R&D has historically been very responsive to the business cycle, which suggests that the global financial crisis may have a significant impact on R&D expenditure in Mexico.

Mexico's innovation outcomes are weak. Its 0.14 triadic patents per million population and 73 scientific articles per million population were the lowest in the OECD in 2008. However, 13% of firms introduced new-to-market product innovations, close to the average.

Mexico's innovation linkages are mixed. During 2005-07, 22% of Patent Cooperation Treaty (PCT) patent applications

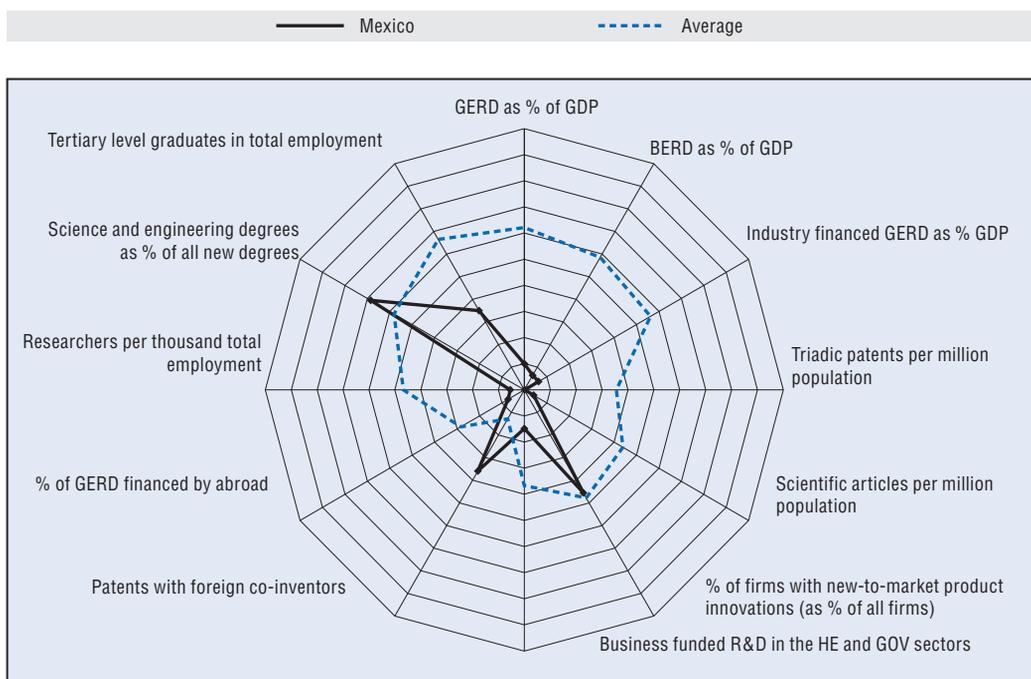
were with foreign co-inventors, well above the average. Over the decade to 2008, its high-technology manufactures increased by a strong average annual rate of 10%, higher than the growth in total manufacturing exports. The 1.4% of GERD financed from abroad in 2007 is comparatively low, however.

Indicators of human resources in science and technology (HRST) vary. Science and engineering graduates accounted for 24.7% of all new degrees, above the OECD average. However, there was less than one researcher per thousand employment, the lowest in the OECD. Tertiary-level graduates were a below-average 18% of total employment.

GDP grew by an average annual 3% between 2001 and 2007 and slowed to 1.5% in 2008 before contracting by a sharp 6.5% in 2009. The unemployment rate increased from 3.7% in 2006 to 5.5% in 2009. Labour productivity is low: average annual growth was a modest 1% between 2001 and 2007, then fell by 2.1% in 2008. GDP per capita, at 31% relative to the United States in 2008, is the lowest in the OECD.

Mexico's key challenge is to establish supportive conditions for innovation through a number of channels, including education and the competitive and regulatory environment. Recommendations in the OECD's 2009 Innovation Review include establishing better governance structures to ensure coherence in the formulation and implementation of innovation policies at the federal and state level, as well as sustained budgetary spending to support R&D.

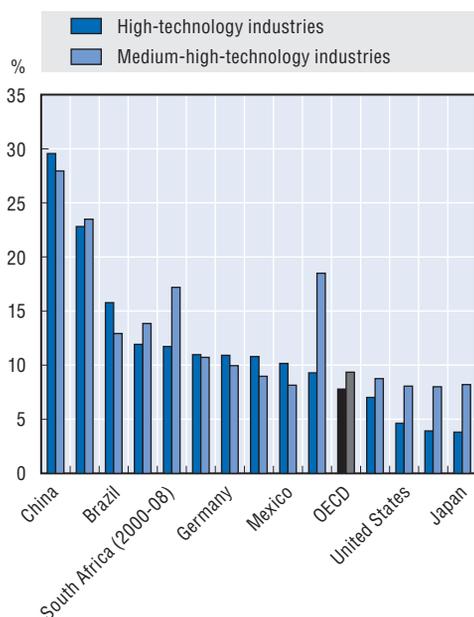
Science and innovation profile of Mexico



StatLink <http://dx.doi.org/10.1787/888932334450>

High and medium-high technology exports

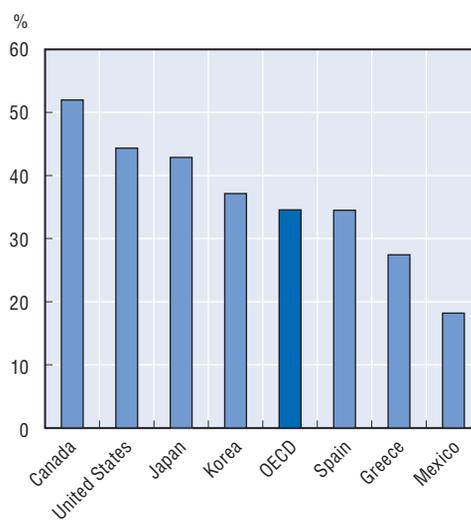
Average annual growth rate, 1998-2008



StatLink <http://dx.doi.org/10.1787/888932334469>

Tertiary-level graduates in total employment

As a percentage of total employment, 2007



StatLink <http://dx.doi.org/10.1787/888932334488>