

# 'JOINED-UP' SOLUTIONS FOR TRAINING AND SKILLS HURDLES

**H**uman resources development (HRD) is a gateway for South Africa's growth and its participation in the global economic arena. It can provide the job skills and opportunities needed for the country's growing youth labour market; open up trade opportunities with other countries; and offer solutions to the country's brain drain in the sectors of science and innovation.

Dynamic growth in HRD depends on investments in infrastructure being made on a scale far beyond the means of any single employer. What is required is large-scale investment in education and training institutions, research and development (R&D) facilities, networking activity among employers through formal associations, innovation partnerships between higher education institutions and industry, and industrial stability.

For investment in infrastructure to succeed, it should involve the State, employers and civil society working in co-operation to reach their common goals in HRD. The international literature refers to this as a 'joining up' of social institutions interacting and working together to reach their common goals in HRD.

To stimulate this process of co-ordination, the HSRC has launched a series of triennial reviews on HRD in South Africa, entitled *Human Resources Development Review 2003*, funded by the Department of Science and Technology. This edition's 28 chapters focus on the demand-side and supply-side dynamics that affect HRD as well as the pressing issue of skill shortages in key professional areas.

The analysis identifies severe problems in three key sub-systems of the larger South

African society: the youth labour market, the world of work (i.e. the national economy and its associated institutions of enterprise training), and the national system of science and innovation.

Problems that arise in these sub-systems, such as a mismatch between schooling and employment opportunities in the youth labour market, rarely trace back to one institution or the policies of one government department.

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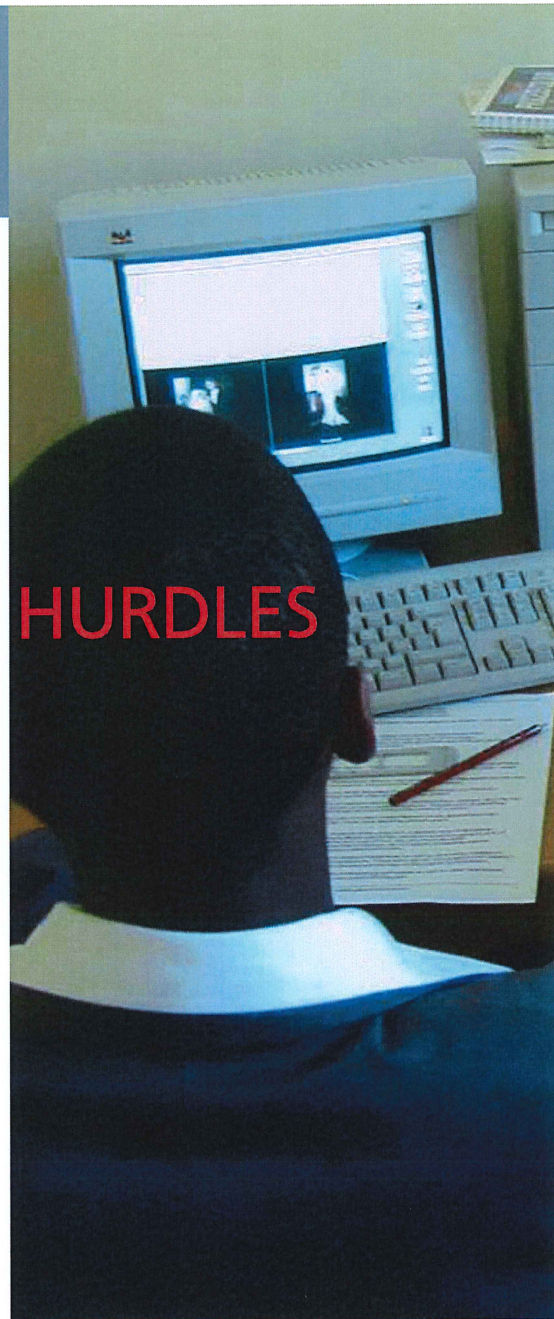
Rather, they relate to a cross-section of government policies and so their solutions need to be forged cross-sectorally, across various government departments.

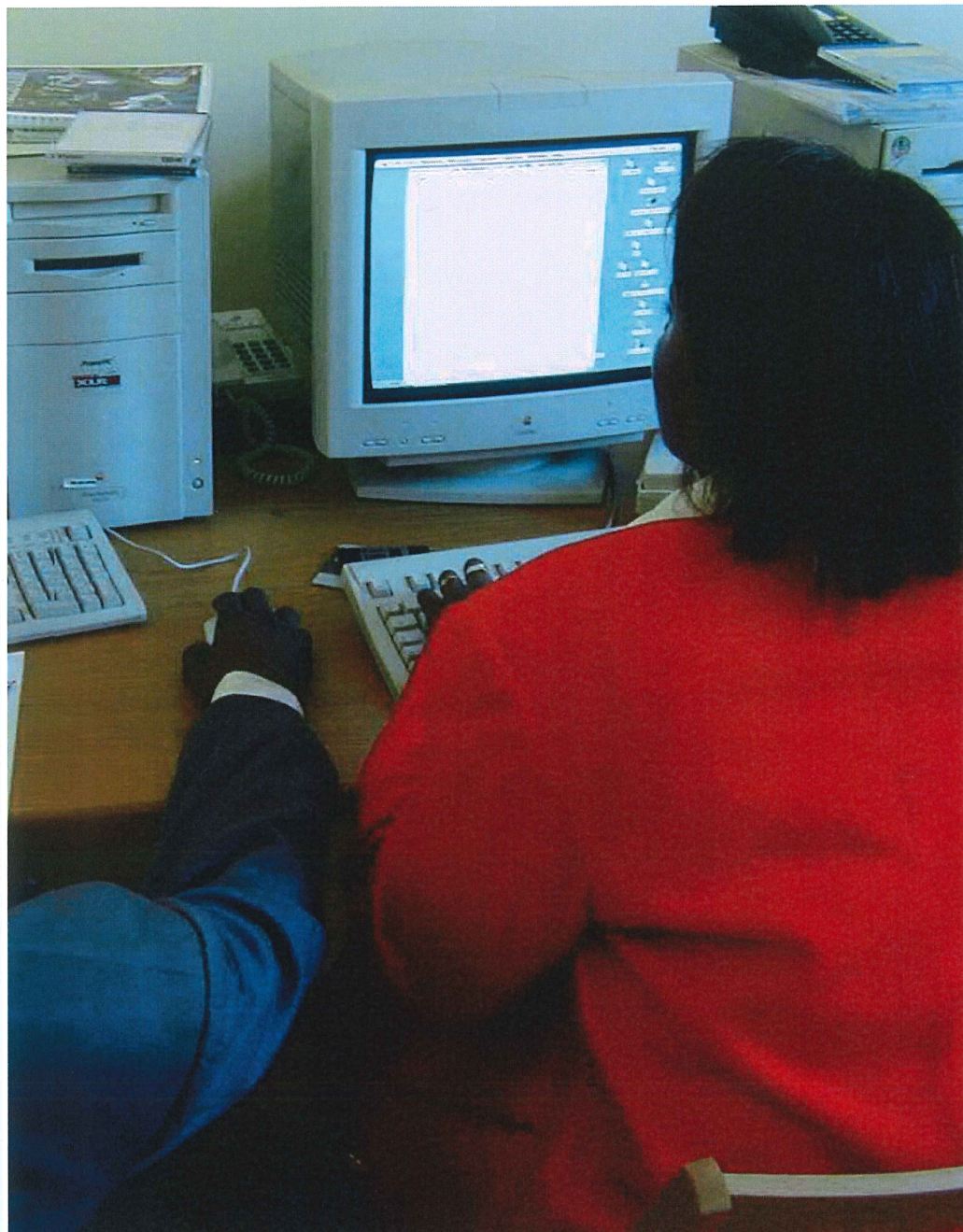
As the *Human Resources Development Review 2003* points out, these three sub-systems face severe problems that are putting the brakes on HRD in South Africa. Key institutions in each sub-system are 'out of sync' with the dynamics and needs of other institutions, in some cases even working against each other.

For instance, the fundamental contradiction in the country's youth labour market is that, as the school system has grown over the past decade, the number of formal-sector jobs available to school-leavers has shrunk. Resolving this dilemma will require new employment policies, economic sector growth

strategies, public works schemes, child welfare policy, educational quality assurance strategies, improved achievements in Grade 12 examinations, student financial aid schemes, and enhanced technical and vocational education policies. This requires joined-up policy and implementation far in excess of what has already been achieved by the government.

There is a similar dualism in the world of work, where the advancing high-technology export sector is leaving behind the much larger population of workers with intermediate and low skills. The solution requires the generation of high-end as well as low-end employment opportunities; the implementation of a package of welfare transfers (through unemployment benefits and/or massive public works programmes) to





output of scientific articles has remained static over the past decade, with a slight decline since 1997. Higher education institutions and science councils are struggling to recruit and retain young scholars who publish, while the existing publishing population moves closer to retirement age.

South Africa spends 0.76% of gross domestic product on R&D – far less than, for instance, Australia, Canada, Finland, Germany and Spain. Enrolments for doctoral degree programmes in science, engineering and technology are low, growing at an average of 2% a year between 1985 and 2000, and most students enrolled for post-graduate degrees are still white and male. Post-graduate studies in the human sciences still dominate. And between 1987 and 1997, the country lost 41 496 skilled emigrants – 3.2 times more than the 12 949 officially declared.

In other words, just as South Africa faces the possibility of moving up the global value-chain in terms of increased exports, so its science system weakens – not good news for the country's global competitiveness.

The government's new National R&D Strategy aims to develop science and technology capacity along five critical technology platforms and increase the number of women and black scientists in key fields where they are under-represented. The Cabinet has also committed to substantially increasing the science budget from 2004/05 to 2006/07 to finance these reforms.

The call for joined-up policy action applies

compensate for the lack of basic jobs and to stimulate the domestic economy; and greater relaxation of the government's monetary and fiscal policies and the adoption of a more expansionary stance, to stimulate economic growth from within.

Again, there is the need for a more aggressive joining-up of economic, industrial, firm-based, and education and training policies, to create one overarching and coherent economic and human resources development strategy for the medium to long term.

South Africa's system of science and innovation has been weakening. This is a major problem because the science system plays a vital role in helping the country to improve production methods, outputs and employment levels, and to maintain a competitive ranking

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against other countries in the global economy.

For instance, South Africa was ranked 94th out of 162 countries in the human development index in 2001 and dropped to 107th place out of 173 countries in 2002. The country was rated 39th out of 72 countries in the technology achievement index in 2001, coming in ahead of other developing economies such as Brazil (43rd), China (44th), Algeria (58th) and Indonesia (60th).

South Africa may lose this small edge against other middle developing economies as it falls behind in areas such as research output and scientific publishing. The total

here too, across scientific, industrial, employment and economic sectors.

Such complex social problems require multi-faceted policy solutions across government departments and private sectors, along with a sophisticated and up-to-date management information system. Only in this joined-up way will the country's broad HRD problems be effectively eliminated. •

**For further details on the publication, see back cover.**

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# HSRC review

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**The Great Challenge:**  
Mastering the skills and training hurdle