

As was highlighted in INSSO's first publication *Think Global Act Sectoral* we are now entering an era of the 'global skills race'. This at a time when the global economic recovery is not matched with a recovery in jobs. And as governments move from stimulus to fiscal consolidation, this uncertain context makes Labour Market Information and Intelligence (LMI) central as a provider of the analytical insights into the key drivers, trends and issues affecting the skills market and the sector interventions required to adapt to the future of work.

This second INNSO publication on Labour Market Intelligence features successful LMI practices of sector-based systems in eight countries.

International Perspectives on

Labour Market Intelligence

*Developed for INSSO by founding member
The Alliance of Sector Councils (Canada)*

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Canada 

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SKILLS ORGANISATIONS

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INSSO Responding to the Global Recovery:

Foreword by INSSO Chair

Since the global financial crisis of 2008, countries around the world have been pulling back on public investments in education and skills. In some cases the increased costs of education is being passed onto individuals through higher fees and on employers through cutbacks in public subsidy. Despite the gloom, the world economy is recovering again and industries as diverse as mining and healthcare are looking to hire more skilled workers. Unlike previous periods of expansion, this recovery will be fragile and led by the private sector as government budgets continue to come under severe pressure. Central to the understanding of where the jobs and growth of the future will come from is good intelligence about the labour market, also known as LMI.

INSSO member countries came together in 2010 in an unprecedented coalition to collaborate and share best practice across international borders. This is the second publication from the network after *Think Global, Act Sectoral* available from the website: www.inssso.org. This book about Labour Market Intelligence (LMI) captures the diversity of sector based systems and the different paths that countries are taking to attain a good understanding of the labour market. Despite some differences, there are three key outcomes that all systems of Labour Market Intelligence appear to achieve. Firstly, LMI is increasingly being used to develop 'demand-led' funding routes for skills training by, for example, linking the payment of course providers to employment and skills outcomes; second, LMI is strengthening the employer and 'industry voice' in the labour market helping government and citizens understand more clearly what skills are required and where the jobs of the future are likely to come from, including the requirement for labour migration; third, LMI is the tool that sector bodies are using to reform vocational skills systems, including entry-level and post-graduate training by using the analysis to develop bespoke products and services. Taken together, LMI is an invaluable source of sector intelligence that modern economies would be hard pressed to do without.

Tom Bewick
Chairman – INSSO

How They Do it in Different Countries:

Introduction from Canada

The Alliance of Sector Councils is pleased to have produced this second International Network of Sector Skills Organizations (INSSO) publication focusing on the theme of Labour Market Information and Intelligence (LMI). As our economies become more interdependent, the need to enhance our understanding of the global nature of work is ever more important.

This international collection pulls together timely and focused labour market research from eight countries and speaks to how these countries address specific employment challenges and country-level work issues. This collection provides an overview that draws attention to important differences in terms of labour market trends and design of employment policies within each region and presents best practice initiatives led by sector skills organizations.

It is evident that while the global economic situation has improved, high levels of unemployment in developed economies stand in stark contrast to this uncertain recovery.

As we take stock of the labour market situation it is clear that while governments carefully move from stimulus to reducing deficits, this change of focus will at the same time need to address both labour productivity and a sufficient expansion in job opportunities. It will be crucial to enhance measures that can help increase employment creation and boost sustainable jobs.

The global sector-based systems are uniquely positioned to drive sustainable strategies and to strengthen private sector human capital skills development. Labour Market Information and Intelligence drawing on a range of inputs and processes gives us the analytical insights to use across the skills, qualifications and employment system to support the development of policies and programmes that meet the needs of individuals, employers, and the wider economy. It is in this regard that this second INSSO publication seeks to enable and strengthen mechanisms for greater international cooperation and learning.

L. Andrew Cardozo
Executive Director,
The Alliance of Sector Councils Canada

Australia

Industry Skills Councils

Industry Skills Councils

Bob Paton

Chief Executive Officer, Manufacturing Skills Australia

Bob Paton is the CEO of Manufacturing Skills Australia (MSA). This is one Australia's 11 national Industry Skills Councils, recognised and funded by the Australian Government. The organisation's roles include the ongoing development and maintenance of national vocational qualifications for the manufacturing industry, gathering and providing industry intelligence and assisting companies with their workforce development. Bob was appointed at the end of 2004 after more than 8 years as National Executive Officer of the Manufacturing, Engineering and Related Services Industry Training Advisory Body.

Labour Market Information in Australia

Introduction

Labour Market Information (LMI) for Australian Industry Skills Councils (ISCs) is captured in an annual *Environmental Scan*, produced by each of the eleven ISCs. The *Environmental Scan* (the E Scan) is a formative document which captures and analyses the most recent grass-roots industry intelligence gathered by the ISC that identifies existing and emerging skill shortages and training requirements. It is expected that this intelligence would be collected largely as part of an ISC's on-going activities throughout the preceding period.

E Scans vary from industry to industry but are typified by the following common key characteristics:

- ◆ The E Scan involves a broad analysis of recent intelligence and the external environment to identify skill shortages and needs, changes, and trends through a point-in-time snapshot. There are three primary contexts within which this occurs: the market, the industry and the macro-environment:
 - ❖ Market ... the VET environment, VET stakeholders and peak organizations
 - ❖ Industry ... enterprises, professional and industry associations and other key stakeholders, and may include issues such as regional needs and specific occupational shortages
 - ❖ Macro-environment ... broad factors and emerging trends across and between industries, and global trends or changes which impact directly or indirectly on the need and nature of skills.
- ◆ The E Scan is not a re-creation or compilation of existing data or economic analyses found elsewhere, nor is it a strategic plan. Such reports are typically premised on future change being a continuation of past trends, an approach which can be unreliable for predicting skill needs due to the speed with which new factors impact and shape the economy.
- ◆ The E Scan illustrates the impact and use of existing Training Packages (industry-based groupings of national qualifications) within industry and across training providers and identifies trends and statistics that fall outside of the national data collections. It also reports on the uptake of Training Packages across the delivery system, the increased flexibility being built into Training Packages, and their alignment with occupational licensing and regulation where it exists.

- ◆ The E Scan includes a ‘stocktake’ of physical changes made to the endorsed components of Training Packages over the preceding 12 months to reflect industry’s emerging needs and address identified skill shortages and gaps. It identifies the new sectors and units of competency included and any refinements to existing content. The ‘stocktake’ is presented as a simple matrix and is submitted twice a year, once as an attachment to the Scan and six months later as a standalone document.

Funding of LMI

The E Scans are produced as a component of core business for Australian ISCS. The ISCs operate under a three-year funding agreement with the Australian Government. The agreement acts as a performance contract for the ISCs and includes a series of key performance indicators that are aligned to the fundamental role of the ISCs to support skills and workforce development in their respective industries, specifically to:

- ◆ provide industry intelligence and advice to Skills Australia, government, and enterprises on workforce development and skills needs;
- ◆ actively support the development, implementation, and continuous improvement of high quality training and workforce development products and services, including the nationally endorsed Training Packages;
- ◆ provide independent skills and training advice to enterprises, including matching identified training needs with appropriate training solutions; and
- ◆ work with enterprises, employment service providers, training providers, and government to allocate training places.

Methodology

There is no fixed methodology demanded of ISCs in producing their annual E Scans. Each ISC determines how it will gather and collate the necessary information. However, there are some reasonably common approaches that include combinations of the following techniques:

- ◆ structured on-line and telephone surveys
- ◆ focus groups
- ◆ feedback contained in continuous improvement registers maintained by ISCs
- ◆ collated information gathered from staff interaction with enterprises
- ◆ research in industry and other publications
- ◆ use of planning information from industry and governments
- ◆ consideration of economic, demographic and other data

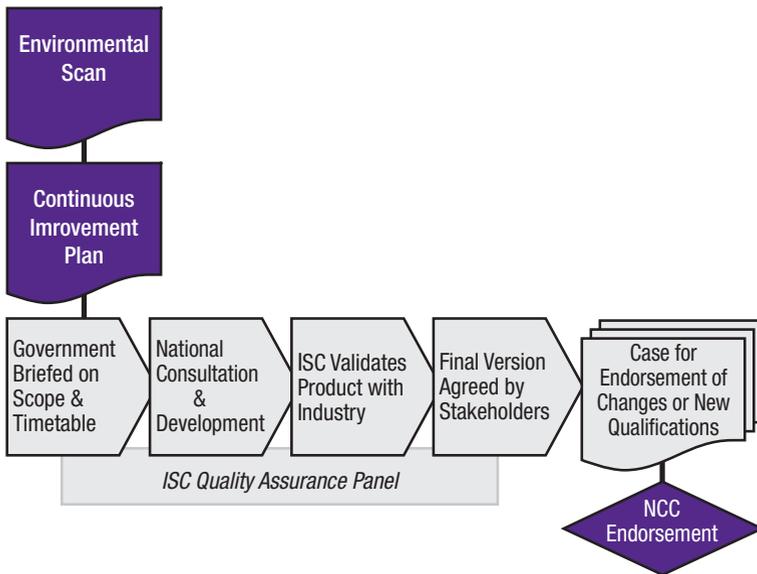
The information is prepared in a succinct format. E Scans usually contain an overview of the whole industry (e.g. manufacturing) and then by sector (e.g. engineering). The E Scan notes changes that have occurred and those that are expected to occur. It provides an analysis that shows drivers for change and the resultant impact on the workforce, education and training.

The final E Scan is published and is made available freely in both hard copy and downloadable electronic format from the ISCs' web sites.

Usages of LMI

The E Scan forms an important part of the work of ISCs and is used for a range of purposes. As well as providing key stakeholders with up-to-date industry information to assist in the analysis of Australia's workforce development needs, the E Scan is the key informant of ISC work plans for the development and continuous improvement of our national qualifications and our workforce development strategies.

The use of E Scans for qualification development and improvement is shown in simple form in the following diagram.



The E Scans operate as an early warning system by alerting the National Quality Council (NQC)¹ and Skills Australia² to potentially significant issues at a product, operational, and systemic level. The value of E Scans, and what sets them apart from other reports in the VET system, is that they reflect the immediacy and breadth of industry feedback gained by ISCs. E Scans encompass real-time industry views and evidence captured from across Australia on current and emerging skill shortages and skill needs. E Scans analyse how well the VET system and Training Packages are responding to those needs and provides advice on opportunities to boost skill levels to meet identified workforce development needs. These contemporary insights are translated into an analysis of what changes are required to Training Packages in order for them to respond to this emerging environment.

E Scans provide valuable industry information on which to base ‘new conversations’. Their levels of insight and predictive capabilities also inform ISC Board deliberations on future direction setting and broader promotional activities.

1. The National Quality Council (NQC) is a Committee of the Ministerial Council for Vocational and Technical Education. The NQC oversees quality assurance and ensures national consistency in the application of the Australian Quality Training Framework standards for the audit and registration of training providers and the national endorsement of Training Packages and their qualifications. NQC membership includes representatives from peak industry employer associations and trade unions, state/territory and federal governments, peak public and private training organisations and equity representatives. <http://www.nqc.tvetaustralia.com.au/>
2. Skills Australia is an independent statutory body, providing advice to the Minister for Tertiary Education, Skills, Jobs and Workplace Relations on Australia’s current, emerging and future workforce skills needs and workforce development needs. <http://www.skillsaustralia.gov.au/>

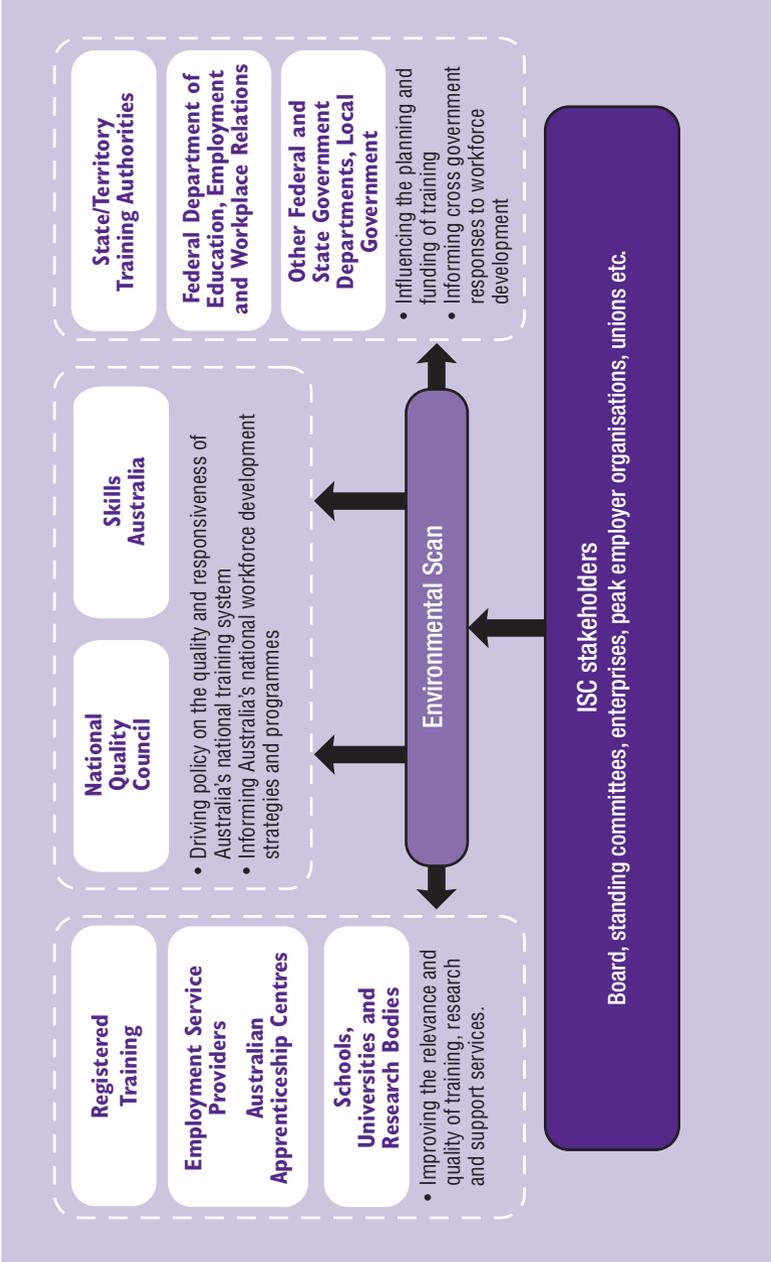
The following stakeholders typically would be engaged with the development of the Scan:

- ◆ enterprises
- ◆ employer and employee representatives
- ◆ licensing and regulatory bodies
- ◆ the eight state and territory governments
- ◆ the federal government
- ◆ registered training organizations

E Scans are fairly concise documents, with an indicative length of 20 pages (excluding appendices). They include:

- ◆ contemporary intelligence on industry skill needs, trends, barriers and implications which provides a shared understanding of what industry wants and why
- ◆ broad analysis of current and emerging skill gaps
- ◆ other issues impacting on workforce development that may require attention, such as specific skill shortages, skills needs, and regional requirements
- ◆ impact and usage of existing Training Packages and their qualifications
- ◆ future directions and short to medium term priorities for endorsed components of Training Packages
- ◆ continuous improvement that has occurred to Training Packages over the preceding 12 months.

The figure below illustrates the relationship of the E Scan to stakeholders.



What can the Environmental Scan do for industry?

Quite simply, the E Scan gives individual enterprises and industry more broadly an unprecedented opportunity to influence what largely dictates productivity – the skills and knowledge of their workforce. *The Environmental Scan* is unique in many ways, but most especially in its ability to influence strategic policy – and impact right through on the day-to-day operations of training providers. It is carefully written to span the interests of multiple stakeholders. It is short and deliberate in focus to ensure it is digestible and resonates, and with a proven capacity to:

- ◆ influence governments to resource industry workforce development initiatives and training places
- ◆ validate critical skill and labour shortages needing to be understood and addressed by whole of government solutions (immigration, taxation, labour supply, industry development and infrastructure requirements)
- ◆ provide real-time advice to training providers and guide their products and services to better respond to industry's skill needs
- ◆ inform those organisations which need to play a vital role in a broader, more integrated approach to workforce development, for example, local governments, schools, universities, research bodies.

Further references

Australian Industry Skills Councils (and their Environmental Scans)

<http://www.isc.org.au/>

The Australian Government LMI portal <http://www.deewr.gov.au/lmip/>
Skills Australia research

<http://www.skillsaustralia.gov.au/industry-research.shtml>



Canada

The Alliance of Sector Councils

Andrew Cardozo
Executive Director, The Alliance of Sector Councils

Andrew Cardozo is the Executive Director of The Alliance of Sector Councils (TASC) the Canadian network of national Sector Councils which address skills development in key sectors of the economy. He is a frequently sought speaker and regular commentator on skills issues. In addition to his role in the labour market field, he teaches a course on Media Policy at Carleton University in Ottawa and is a columnist for Broadcast Dialogue magazine and for the Ottawa-based Hill Times.

Labour Market Information provides essential trending and industry-distinctive data

Increasingly, industry and governments alike want to have a strong understanding of the labour market in Canada, within both regions and industries. They also want to know what's ahead – the forecasts for the coming five and ten years and longer. For instance: How many people do we expect will retire? In what occupations and what regions? How many workers will industries need in the future as they grow or contract? Are there sufficient replacements coming through the education and training systems? Or from other sources, such as immigration?

Increasingly all sector councils are feeling the need to have some level of good labour market information and intelligence (LMI). What follows offers a look at some of the systems.

Whether local, regional, provincial or national, LMI for seven of the sector councils track a considerable amount of information and specific data, detailing the structure and workings of their markets along with factors likely to influence their industries.

Four councils have well-developed and sophisticated methodologies appropriate to their needs:

- ◆ The **Canadian Tourism Human Resource Council** quantifies long-term economic and demographic trends affecting the tourism sector by using a macroeconomic model to report potential labour shortages out to 2025. By determining the gap between the potential demand for labour and the supply of labour available, the degree to which labour shortages will affect the sector over the medium and long term can be assessed for both tourism occupations and Canadian regions. The report relies heavily on industry input to ensure accuracy and to develop strategies for mitigating future shortages.
- ◆ The **Construction Sector Council** provides industry and governments with an annual forecast scenario that includes an economic outlook, construction investment, and employment demand for more than 31 trades and occupations for 14 regions across Canada over a nine-year period. The scenario is produced using a sophisticated model and significant input from a network of regional LMI Committees comprised of industry and government stakeholders. This complex analysis culminates in a market ranking of labour availability for the more than 31 trades and occupations by province/region, and an assessment of retirements over the nine-year period. This state-of-the-art, complex, and detailed analysis of construction supply and demand is used extensively by the private sector, various levels of government, and training providers across the country as a planning and decision-making tool.
- ◆ The LMI collected by **ECO Canada** is used not only to track supply and demand dimensions of the environmental labour market, but also to explain the intricate relationships between business strategy, government policy and public consensus for the environmental sector as well as to assist in defining such phenomenon as the “Green Economy” and the “Low Carbon Economy”. LMI is especially crucial in the environmental sector, as National

Occupational Classifications can't yet fully identify the industry's spectrum of jobs and considerations, given that most occupations have potential or some environmental aspect. Evaluating the sector and defining "environment-related employment" is critical. Using the North American Industry Classification System, 13 such NAICS were analysed for 2006 to 2010, with a high growth rate projected.

- ◆ Since 2001 the **Information and Communication Technology Council** (ICTC) has been the source for LMI for the Information and Communications Technology (ICT) sector in Canada. ICTC's Outlook 2008-2015 is the first Supply and Demand forecast of ICT occupations. 14 Core and 19 ICT-Related occupations across 20 NAICS were forecasted for six regions using three scenarios to project the supply and demand needs of industry. This biannual forecast will be revised in 2010. Skill shortages are the key issue for ICT employers. Labour shortages in some critical ICT occupations exist in select regions. LMI is used extensively by ICTC's stakeholders and by ICTC to develop and guide long-term strategic human resource planning.

Three other councils are also well on their way to developing complex LMI systems:

- ◆ The **Electricity Sector Council's** highly focused three-year project collected information on 15 critical occupations, reporting on current employment, workforce statistics and demographics, as well as future projections for employment, retirement and the workforce demand/supply gap nationally. The methodology involved surveys/interviews with employers and educational institutions and an extensive review of official data. A unique attribute of this LMI project is that a small number of employers represent the bulk of employment; therefore, the involvement of the majority of employers resulted in LMI data that is highly representative of the sector as a whole.
- ◆ The major LMI initiative of the **Mining Industry Human Resources Council** (MiHR) is the Mining Industry Workforce Information Network (MIWIN), which was launched in 2007. Its primary objective is to provide accurate and timely LMI to industry stakeholders. Among other things, this entails forecasting hiring requirements by occupation and region for the next decade. To date, such forecasts have been produced for the mining sectors

of British Columbia, Saskatchewan, and Ontario. By mid-2010, MiHR will complete the development of a national forecasting model. The resulting information will enable the industry, which employs some 215,000 people, to respond more effectively to the numerous HR challenges that it faces, such as how to further integrate non-traditional sources of labour into the workforce.

- ◆ The **Petroleum HR Council** provides regularly updated, long-term labour market projections and trends for the upstream petroleum industry (2010-2020). The Council also gathers, tracks, analyses, and shares short-term labour market issues and trends on a quarterly basis. Short-term labour market information provides a snapshot of labour market conditions within the upstream petroleum industry. Whether industry growth is flat or increasing, projections show workforce shortages beginning in 2012. The petroleum industry will continue to provide significant job opportunities through 2020 in both conventional oil and gas and the oil sands.

All the other 27 sector councils have various other forms of LMI, be it in the form of a “sector study” which provides an occasional overview of the sector or other more focused forms of intelligence. TASC is also coordinating a “Trends Analysis on Labour Market Intelligence” where some 18 councils surveyed 10 employers to track emerging trends and general intelligence.

While seemingly disparate, these sectors are aligned in broader ways, using information that illustrates the vagaries of the environments in which they operate. With unpredictable market changes, the sectors are increasingly understanding – and effectively managing – their own labour markets.

For more information, see *Understanding LMI Technologies and Issues, The Case Studies: Reviewing LMI Methodology Adopted by Seven Sector Councils* (2009) at www.councils.org. Links to all the sector council web sites are also available at this address.



N · S · D · C
National
Skill Development
Corporation

India

National Skill Development Corporation

Dilip Chenoy
Chief Executive Officer,
National Skill Development Corporation

Dilip Chenoy is currently Managing Director & CEO of the National Skill Development Corporation (NSDC). The NSDC is a Public Private Partnership mandated to create, fund, enable and incentivise skill development and upgrade training capacity in India. Its objective is to skill 150 million people in India by 2022 by fostering private sector investment and initiatives in training and skill development in 20 high growth sectors and the unorganized sector. NSDC is also entrusted with the responsibility of creating systems for Standards and Accreditation, creation of a Labour Market Database and identification of skill gaps. Prior to this Dilip was with SIAM, and was the Deputy Director General responsible for Industry Sectors and Associations Council (ASCON) covering, Agriculture, Life sciences and ICT in the Confederation of Indian Industry (CII).

LMIS to be the corner stone of skill development in India

Introduction

In August 2008, the Prime Minister laid out the vision for skill development in India. He stated that “experts have estimated that India has the capacity to create 500 million certified and skilled technicians by the

year 2022” . In order to enable this level of skill development, the Prime Minister then outlined the institutional structure at the national level for coordinated action. This structure consists of a National Council for Skill Development chaired by the Prime Minister, a National Skill Development Coordination Board coordinated by the Planning Commission to combine public and private prongs of action, and a National Skill Development Corporation (NSDC) as a non-profit company catalyzed by the Ministry of Finance to promote skill development in the private sector.

In February 2009, the Government announced the new Skill Policy. As an integral part of the policy, the NSDC was mandated to set up Sector Skill Councils. The Councils were to have the following functions: setting up Labour Market Information Systems (LMIS) to assist planning and delivery of training; identifying skill development needs and preparing a catalogue of skill types; developing a sector skill development plan and maintaining a skill inventory; developing skill competency standards and qualifications; standardising affiliation and accreditation processes; participating in affiliation, accreditation, and standardisation; planning and executing training of trainers; and promoting academies of excellence.

This was a significant departure from the past and will mark a new era of skill development in India. It may be prudent to step back and understand why this change and what it sought to address.

Over the past many years, employers, industry, and even sections of society had begun to articulate the fact that the education and skill development framework in India, as it existed, did not have adequate capacity; the curriculum and teaching was not according to industry standards, and a significant proportion of those who passed out of the system were not employable. In a bid to address some of these issues, the Ministry of Labour, with the assistance of the World Bank, started a series of initiatives to introduce public – private partnerships to upgrade and align the Industrial Training Institutions with the needs of employers and industry. The Ministry of Human Resource Development also introduced a number of programmes to invite public – private partnerships in the education sector. This included both an expansion and an

upgrade of the existing institutions, as well as the setting up of private universities. More recently, the HRD Ministry has also begun a process of understanding the needs of Curriculum in various sectors.

Labour market information in India

There were a number of organisations that either collated and published or estimated the manpower need in various sectors of the economy. Given that India followed an elaborate planning system, and as part of the process of development of the five-year plan, inputs were sought from various organisations as to the need for different levels of manpower in the country over the five years that the plan sought to address.

In addition, the Ministry of Labour and the State Labour Departments operated the employment exchanges that were meant to be the bridge between the employers and those seeking employment.

Other organisations, such as the All India Council of Technical Education, the Medical Council of India, The Institute of Chartered Accountants of India, etc., also had in place some sort of forecasting and analysis systems by which they either granted certification or allowed new capacity to be set up.

Also organisations such as the Institute for Applied Manpower Research carried out surveys and forecasts for different sectors of the economy. The government-promoted National Sample Surveys also collected information on a sample basis on the nature of education, skill level, employment, and job creation. This was both in terms of regional dispersion and according to sector.

In addition, industry bodies such as the Confederation of Indian Industry, (CII), the Society of Indian Automobile Manufacturers (SIAM), and NASSCOM had independently carried out surveys and studies as to the skill gaps in selected sectors as well as in certain states.

With the advent of the internet, various job portals such as Naukri.com; timesjobs.com, Monster.com etc. were launched and filled part of the vacuum that existed. Firms like Teamlease entered into partnerships with state governments with a view to upgrade employment exchanges. States

like Andhra Pradesh and Gujarat, for example, launched websites that are positioned to be one-stop shops for employers, trainees, and training organisations. CII is also collaborating with NSDC to launch a skillpedia.

These were diverse, dispersed and perhaps un-coordinated efforts. While it is clear that these efforts were useful when they were conceived – for example, the CII study finds mention in the National Skill Policy and the SIAM study in the Automotive Mission Plan – in the current scenario, and given the fact that the needs of the country were now different, it was felt that there was both a need to review/revamp the existing systems as well as attempt something new. Hence, in the National Skills Policy of 2009, there was a specific focus on LMIS and Sector Skill Councils.

LMI by Sector Organisations

The International Labour Organisation (ILO) defines LMI as: “Any information concerning the size and composition of the labour market or any part of the labour market, the way it or any part of it functions, its problems, the opportunities which may be available to it, and the employment-related intentions or aspirations of those who are part of it.” There are also other definitions.

Perhaps the first multi-sectoral Human Resources and Skills requirements study in multiple sectors was carried out by IMaCS Consulting for the NSDC. These studies were carried out in 20 high growth sectors and the unorganised sector in India. The sectors covered included: Textiles & Clothing; Building & Construction; Auto & Auto Components; Transportation, Logistics; Real Estate Services; Food Processing; Organised Retail; Health care services; Education and skill development; Banking, Financial Services & Insurance; Gems and Jewelry; IT & ITES; Tourism & Hospitality Service, Travel Trade; Leather & Leather goods; Furniture and furnishings; Electronics & IT Hardware; Media & Entertainment; Chemicals & Pharmaceuticals; and Construction Material, Building Hardware. A study for the unorganised sector was also carried out. The study of the unorganised sector was important, because over 93% of employment in India is in the unorganised sector, with the balance in the organised sector.

If we were to look at the broad requirements of a LMIS, one that would cover labour market conditions, demand supply trends and requirement, composition and characteristics of labour supply, projection of future demand, and industry employment trends over time, then we would see that analysis and interpretation of these trends were covered in the studies. However, lack of data and availability of the same set of data across the entire range of industries studied did result in some of the required information perhaps not being current or complete.

In addition, data relating to education and training resources, particularly relating to private sector initiatives, geographical spread of industry and employment, occupational characteristics and supply, and wage information were difficult to incorporate in full in these initial studies. The industry and employment data used in the studies was based on time series data that were about 2 to 3 years old but updated through interviews and analysis.

Funding of LMIS

An important aspect of all these skill gap reports, or LMIS, was that in almost all cases this research was funded by state governments directly or through an industry association. The NSDC studies were funded by NSDC.

Going forward, it is quite possible that this aspect of the work of a sector skill council would receive funding in at least the short term. If the experiment to make SSCs sustainable is to succeed, then these reports would be financed out of funds generated by functions allocated to the SSCs.

Methodology standard across network

For industry sectors, a common methodology across different industries was followed. Broadly, the report covered the current state of industry, the industry size and growth, demand drivers, success factors and risk for the sector, drivers of competitiveness of the sector, current employment pattern, profile of people employed in the sector, skill requirements and skill gaps, emerging trends, projected size and human resource requirements, and focus areas for skill building.

However, other than sectors like automotive, where there was a clear clustering of industry for other sectors, there was not sufficient geographical data. Some state governments have initiated state level skill gap surveys. NSDC also conducted a pilot district level skill gap analysis and the process is underway to extend it to the rest of the country. For the district level skill gaps analysis, the areas covered were that population attributes in the region, the economic activity, including agriculture, arts and crafts, the current employment scenario, the projected growth in economic activity, the current training infrastructure, the skill gaps prevalent in the region, and focus areas for skill building.

Uses of LMIS and impact

The impact of these studies released in 2009-10, which are available on the NSDC website, was multifold. First, many job seekers realised that there were opportunities in various sectors and for many, this resulted in a new resolve to train themselves to be able to participate in the growth story. Industry and employers also realised that the gap was so large that this could not be resolved by individual CSR efforts.

Government used these as indicators of where intervention was required, as also to focus on the top five sectors to review curriculum. For training providers, it was a clear indication of the opportunities available and encouraged them to set up large-scale training ventures. In fact, the demand supply gaps identified have led to an understanding and belief that skill development could be carried out in a sustainable manner and need not be dependent on aid, charity, or subsidy. Of course, there would be many who continue to believe that there is a need to continue this on a charitable or grant basis. Many training organisations have used this information to set up large-scale ventures that could generate a surplus to enable them to sustain this over a period of time.

Sectoral bodies of industry sectors not covered under the first stage of studies are now exploring the possibility of conducting such reports. More and more state governments are commissioning skill gap surveys. However, the methodology may not be the same across states or sectors. Similarly, sectors such as nuclear energy, solar energy, nano technology and other emerging sectors are not yet covered as separate entities. With the realisation that the possibility of limited availability of skilled persons may be an important deterrent to growth of these sectors in India, efforts

are underway to arrive at the future requirement of skilled persons and also identify the skill gaps.

Skills Gap in the unorganised sector

The unorganised sector is a critical part of the Indian economy. In 2008, 92% of the total workforce of 450 million in India was employed in the unorganised sector. It was estimated that going forward, the percentage of employment in this sector would remain at around 92-93%. The unorganised sector consists of all unincorporated private enterprises owned by individuals or households engaged in the sale and production of goods and services operated on a proprietary or partnership basis and with less than 10 workers.

Unorganised or informal employment consists of workers working in the unorganised sector or households, excluding regular workers with social security benefits and workers in the formal sector without any employment/social sector benefits provided by the employers. This also covered many who are self-employed.

This skill gaps study is unique as it draws a lot of data from government reports, surveys and other information mentioned in this article. It also uses primary information collected by means of surveys and censuses to project long-term employment potential, and it also is one of the studies that has wage-related data and citywise employment potential (for domestic workers across select cities). A section of the report covers key handicraft clusters in India and the skill gaps in those crafts. An attempt has also been made to club similar clusters together. The report also projects the human resource requirement for select informal sectors like beauticians, facility management, security guards etc. The report ends by identifying 14 key sectors with about 34 trades where there should be a focus for skill building.

The Next Steps

As stated, these are initial attempts to create elements of an LMIS. Always it would be difficult to create a perfect and current LMIS, as the situation in most sectors continues to evolve. The current thinking in NSDC is to initiate a statewide skill gap analysis that would also cover areas relating to LMIS that were not covered in the earlier studies. It is expected that this would take time. Further, given that there are a variety

of government data, some with differing time series, a project to collate these and develop a model that would integrate all this data is also being considered. At the same time, effort is being expended to create and fund sector skill councils covering the 21 sectors for which the skill gap surveys have been carried out. The work relating to LMIS for those sectors for which SSCs are being set up would then be transferred to them. The SSCs would also build a phased programme to identify competency and standards for many of the different trades and occupations in their sector. The LMIS developed by the SSCs would contain analysis and also interpretation of the data, and would be required to be updated periodically.

Each SSC would build a portal that would link all stakeholders. NSDC is looking at creating an overall portal that would link these sites and more. Eventually, the plan is to have a one-stop portal across all geographies, sectors, ministries, states, training organisations, employer organisations, SSCs, and other stake holders. NSDC would partner multilateral, bilateral and development organisations in this journey going forward so as to transform the skills landscape in India.



Netherlands

Colo and Kennicentrum

Peter Cras

General Manager Centre of Expertise KC Handel

Peter Cras is general manager of Centre of Expertise KC Handel, since December 1999. Next to his position of general manager, he had an initiating and executive role in the realisation of the competence-based qualification structure for secondary vocational education. He is active in various executive positions. Previously, he worked five years as director of an association for waste management and more than ten years as manager and deputy director for organizations in the areas of examination and assessment. He was also more than ten years teaching in special education and higher vocational education.

Regional and Sector Labour Market information by the Dutch Centres of Expertise

Marie was a 46 year-old sales employee in a drugstore in the south of the Netherlands. By October 2008, she had worked for 20 years at this company. A few months later, this international company had to close all of its stores in the Netherlands due to the global economic crisis. Marie was aware of the challenges her company faced, but she was not prepared for the loss of her job. At her age and with her lack of certification, she felt she was facing a big problem.

Soon after Marie was told about the closure of the store she worked in, she was offered to join a free work-to-work programme. In this programme, her employer cooperated with various public institutions to help her to

find a new job. A coach helped her to explore her possibilities. She completed an extended test and found several new employment possibilities in her neighbourhood, in branches she was interested in and thus, she would have a good opportunity to find a job. Through the programme, Marie was able to register her experience in experience-certificates. This enabled her to get a certificate in new areas of work with minimum new effort. At the end of it all, Marie was now fully equipped to start looking for a new job, by which she was helped through the extensive network of the Dutch Centres of Expertise. Thanks to the fast repositioning of Marie, an expensive outplacement procedure was not necessary and public institutions saved money for her allowance. One of the key-ingredients of this successful programme is a thorough knowledge of Labour Market Information.

17 Centres of Expertise

The 17 Dutch National Centers of Expertise are able to tell where changes are on the labour market, and where the labour market will face shortages in employees or places of work. This article takes a closer look into the way the Centres of Expertise have organised Labour Market Information. The Centres of Expertise jointly represent more than 40 different branches of industry. Colo is the association of 17 Centres of Expertise on Vocational Education, Training and the Labour Market.

The Centres of Expertise have three statutory duties:

- ◆ Developing and maintaining the qualification structure, based on the needs of the labour-market.
- ◆ Providing sufficient acknowledged companies where students can have good qualitative internships.
- ◆ Promoting the quality of these acknowledged companies.

To perform these legal tasks the Centres of Expertise receive financial contributions from the government. This government-aided financing requires openness about activities and results. This public accountability is demonstrated within the governance code, the performance monitor, and accountability with respect to the Inspectorate of the Ministry of Education.

All parties working in the field of vocational education follow the conditions of the “statutory duty of care labour market prospects”. This means that institutions paid by the government have the duty to present only courses in which students have sufficient opportunity to find work. Criteria to judge this “Macro-efficiency” is the availability of sufficient places for students to do an internship and good labour market prospects for graduated students.

Colo stimulates dynamic interaction between the labour market and education. It represents its members on local, regional, national, and international levels. Furthermore, it is a platform for the Centres of Expertise to discuss and agree on common interests and share best-practices. Colo and its members also jointly initiate inspiring new projects.

Labour Market Information

Every year the Centres of Expertise perform sectoral research for all 40 branches and 650 occupations. Research is on participation numbers, internship places, and the labour market in general. Knowledge of the labour market gives insight into the needed internship places. Knowledge about the labour market is collected from several sources, for instance from the companies acknowledged for vocational internships. The strength of the Centres of Expertise is their capability to connect this data to the knowledge and insights of 800 regional advisors who are well informed on the labour market of their sector in their region. All Centres perform a yearly investigation of the labour market, so that recent labour market information is always available for all sectors.

The Centres of Expertise maintain good contacts with the social partners from the various branches. The researchers of the Centres of Expertise develop up-to-date labour market information that they will use as input for the qualifications structure, vocational guidance, and regional policies.

In the Netherlands, subsidies are granted more and more on a regional level. For Colo and the Centres of Expertise, this inclines toward a deeper focus on regional labour market information.

Publication and bundling of Labour Market Information

In many different forms, this information is used to serve as many people as possible. The 17 Centres of Expertise together represent 44 branches of labour, which cover all vocational fields. By bundling information about the 44 branches (the availability of work, the numbers of students that subscribe for studies in the different branches, economic development, which also contains demographic changes, etc.) into overall-leaflets, it becomes very clear to different parties where to encounter chances and where problems will appear in the future. The information is published through many different channels:

The Colo Barometer

The Colo Barometer is a quarterly report about the availability of work placements in all work areas. The Colo Barometer contains standard labour-market information: where do chances lie, which difficulties are encountered in the branches, which studies are popular by students etc. Next to that, the Colo Barometer reports more thoroughly about one specific theme in the labour market, like employment of disabled people or studying adults.

Basiscijfers Youth

One of the effects of the economic crisis in the Netherlands was a big increase in youth unemployment. In order to deal with this problem, the government introduced a special programme called “Action Plan Youth Unemployment”. Under this plan, local governments and public institutions could request funding for projects to fight youth unemployment. To give these local governments and institutions insight in the scope of the problem and specific bottlenecks on the labour market, Colo and the Centres of Expertise decided to report on this information in regionally distributed leaflets. Three times a year, Colo and UWV WERKbedrijf (the public employment office in the Netherlands) together published 30 leaflets with labour market information on every labour market region in the Netherlands. In these leaflets, quantitative information is shown about: students subscribed, graduated or dropped out of schooling; the unemployment rate of those under 27 years of age; rates of students in all branches that have difficulties finding work; qualitative information about the situation and the labour market in all branches; studies with good opportunities to find work etc.

Co-operation with other public organisations

To be able to spread knowledge on the most effective way, Colo works together with several public organisations. One of these organisations, as mentioned, is UWV WERKbedrijf, which is the office of public employment. An important objective to meet labour market needs is matching demand and supply. In 2009, Colo and UWV signed an agreement to join forces in order to reduce (youth) unemployment and increase labour market transparency. Colo and UWV have already been cooperating in the area of international credential evaluation since 2003.

Example from the Health care sector

In the north of the Netherlands, labour market information of the Centres of Expertise showed a shortage on internships in the health care sector. This shortage was specifically pressing for students in lower levels of education. Labour market information showed a good perspective for these students on the future labour market. To make sure these students would not drop out of school, the Centre of Expertise of health care, Calibris, initiated a project in which students could learn on the job, be supervised intensively and finish their studies on time. Because of this good monitoring of labour market information, these students will be ready for the labour market when they are needed.



New Zealand

Industry Training Federation

Jeremy Baker,
Executive Director, Industry Training Federation

Jeremy Baker has been involved in tertiary education issues since the early 1990s, working in both the public and private sectors, including running his own educational policy and research firm. Jeremy has also worked for Business New Zealand, the national body for the business community in New Zealand, as their Advisor for Education and Training and more recently as Manager of Employment and Skills Policy for the Department of Labour.

Eric Krassoi Peach, Project Manager:
Labour Market Analysis, Industry Training Federation

Eric Krassoi Peach joined the Industry Training Federation in 2010 after working as an analyst in the Work Directions group at the Department of Labour. He currently holds a Bachelor's degree in economics from Hendrix College in the United States.

New Zealand's Industry Training Organisations

New Zealand is an island nation located east of Australia in the South Pacific. It has a landmass similar in size to the United Kingdom or the state of Colorado in the United States and has a population of 4.3 million people. New Zealand's economy has historically centred around agriculture and is internationally known for its lamb, wool, and dairy products.

New Zealand has 39 Industry Training Organisations (ITOs) which act as bridges between industry and tertiary education and training. ITOs gather and analyse a significant amount of labour market information describing their sector and the broader economy. This information is used to understand sector composition, forecast sector skill needs, identify drivers of productivity, and articulate education and career pathways into and through the sector.

New Zealand's ITOs have three legislated roles:

- ◆ Industry skills leadership – determining and promoting the skill needs of the industries they represent
- ◆ Defining national skill standards and qualifications – establishing competency standards and industry-relevant qualifications as part of the New Zealand qualifications system
- ◆ Arranging workplace-related training for employees – linking individual workplace learning to national industry skill needs

Each of these roles requires labour market information to varying degrees.

Research and analysis capacity

ITOs, like the sectors they service, vary in size and capacity. On average, ITOs employ 32 workers and range from one-person operations to larger organisations of over 150 staff. In the latest survey of ITOs in 2009, more than half of them employed at least one staff member full-time on research, evaluation, and labour market analysis. This figure hides the total amount of resource ITOs spend on this kind of work since a number of them contract outside firms to conduct research and analysis. In addition, many ITOs collaborate with governmental agencies and professional associations on sector projects. In recent years, ITOs have begun to work together in clusters to pool resources and labour market expertise.

Sources of information

The labour market information used by ITOs is multifaceted and derived from a variety of sources. The most commonly used information comes from official statistics generated by New Zealand's official statistical agency, Statistics New Zealand. ITOs generally draw from three main datasets. One of these is the Census of Population and Dwellings. The

census is conducted every five years and offers a detailed snapshot of the labour market. It is the most comprehensive source of labour market information available in New Zealand since it attempts to survey every person currently in the country. While the data is collected infrequently, it is the only option available for analysts interested in the detailed demographic and occupational makeup of a sector.

A more regular official data source is the Household Labour Force Survey (HLFS). This is a quarterly survey with a sample of 15,000 households (roughly 30,000 individuals). It is the official measure of employment and unemployment in New Zealand and is seen to be a reasonably accurate measure of employment in high-level occupations and industry groupings. The HLFS also runs periodic supplements which include questions about income and education (among others).

Another source of official statistics, which was developed only recently, is the Linked Employer-Employee Dataset (LEED). This set links administrative data collected by New Zealand's tax system to business demographic data collected by Statistics New Zealand. The dataset contains a variety of indicators including employment, turnover, and mean earnings for detailed industry groupings.

ITOs also generate their own labour market data through surveys, focus groups, and from staff in the field. The methodology used to collect this information varies from ITO to ITO but good practice is shared within clusters and through network meetings hosted by the Industry Training Federation. Since New Zealand is a small country with few research firms, often the methodology used in a project for one ITO is applied when another wants to do something similar.

Uses of labour market information

ITOs utilise labour market information for a variety of purposes. Most commonly, they use surveys of their members to understand the operations and job levels their sector's workforce is employed in, and to identify new training opportunities. Current employment trends are also analysed to create forecasts of future skill needs, which spurs debate within the sector and informs the ITO's conversations with its governmental funding bodies.

Identifying skill needs from labour market trends is only one part of the picture; to ensure they are building the right kinds of skills, ITOs have

found it useful to identify the drivers of productivity for their sector and to quantify the value of training on those drivers. This allows ITOs to demonstrate the return on investment of training to employers, and focus their efforts on developing standards and qualifications that link most directly link with productivity improvement.

Recently, a group of ITOs volunteered to participate in a project to measure the value add from training. A wide range of sectors was covered, including: extractives, seafood, horticulture, and the service industries. The aim of the project was to establish the drivers of productivity for their sector, and identify which drivers could be linked with training and were currently measured (mastitis rates, or speed of raw material processing for example). Once these were identified, the project managers compared the performance of trained and untrained workers to quantify the value of training to firms which was reflected in improvement in those measures. The findings of this work has helped ITOs to identify where training is being effective and where there is room for improvement. More information about this work and the final reports can be found at <http://www.itf.org.nz>.

Sector skills leadership also means communicating education and career pathways to learners and career advisors. Most ITOs have information about these pathways but several have undertaken large projects to better explain the occupations available to prospective trainees and to articulate the qualifications they will need to work in them. The best example of this is a collaboration between two ITOs which together cover the aviation, hospitality, and tourism industry. They have created a web portal called NZSkillsConnect which graphically demonstrates the various occupations available to trainees with sample career progressions and entry requirements for each. This portal was designed using the results of extensive consultation with sector representatives and current statistics on employment and incomes (<http://www.nzskillsconnect.co.nz>).

There are many other examples of what ITOs are doing with labour market information to fulfill their role of providing sector skills leadership. The Industry Training Federation has compiled a collection of case studies highlighting this work in a report entitled *Skilling New Zealand: ITO Leadership in Action*. This collection, and other ITF reports, can be found at the ITF website: <http://www.itf.org.nz>

Challenges

In recent years, there has been a push for ITOs to use official industry and occupation codes in their data analysis and training plans. This has come about because of incomparability between ITO data and official statistics. Historically, New Zealand had its own classification systems built from international coding structures, but has recently collaborated with Australia to create an amalgamated system of codes now used in both countries. While these codes include detailed occupations and industries, they have created real challenges for many ITOs. In many cases the codes group industries in ways that might be logical in an academic sense but do not match neatly with ITO sector coverage. This is especially true for ITOs that cover sectors with no universally agreed boundary or definition (tourism or ICT for example). This issue becomes compounded for ITOs that cover very disparate industries. For example, one ITO has coverage for the electro technology, ambulance, financial services, contact centre, security, offender management, and telecommunications sectors. This makes it very difficult for them to describe the labour market data of their coverage within the official classifications.

Another challenge of using official statistics is maintaining data currency and accuracy. Since the census is the most comprehensive source for detailed demographic and occupational breakdowns, the value of these diminishes in between census years. The LEED data set has a high degree of accuracy but is always 12-18 months out of date since self-employed workers report their tax data annually rather than quarterly. There is therefore no perfect source for labour market information, and ITOs must rely on a variety of sources to get useful results.

In an effort to help ITOs understand the official labour market information available, the Industry Training Federation created a data tool for its members that compiles a raft of official statistics and displays them in tables and charts organised by subject. ITOs can select up to twenty sub-industries to create their particular sector then use the tool to link the data spreadsheets to a word document. This automatically generates a report that sets out in plain English the data from the spreadsheets describing the kinds of people working in the sector, the skills they have, and the characteristics of firms in the sector, and many other useful data. This has simplified data gathering for ITOs and has been especially useful for the Industry Training Federation's smaller members.

In the face of the global financial crisis, many governments have been trimming back funding and asking the public sector to do more with less. New Zealand is no exception. The industry-training sector has seen an astonishing growth in participation in the past two decades. The number of individuals in formal training has grown from 16,000 in 1992 to over 180,000 in 2009 with additional funding commensurate with such growth. ITOs will have to adapt to leaner times by pooling resources and finding ways to collaborate with educational institutions and government bodies to maximise the research and analysis resources they have. This sort of change can often be difficult but will undoubtedly spur innovation and creativity.



Pakistan

National Vocational & Technical Education Commission

Afzal Latif,

Director General, Planning and Development, National Vocational & Technical Education Commission (NAVTEC)

Like other national technical and vocational education (TVET) reform strategies, Pakistan's National Skills Strategy 2009-2013 (NSS) sets out three main objectives: (i) providing relevant skills for industrial and economic development; (ii) improving access, equity, and employability; and (iii) assuring quality for skills development. The pivotal aspect of this reform effort would be to transform the TVET system in Pakistan from a supply driven one to a demand driven one.

In most developing countries the TVET system is based on government led supply side efforts, which has resulted in much TVET provisioning being out of touch with the actual needs of industry, with outdated curricula and instructors not cognizant of industry needs. The training is determined by suppliers as opposed to the market. This results at worst in ossification, and at best in a slow, sluggish response to actual or changing market demand for skills. Any attempt at TVET system reform so that it develops closer links to the labour market by anchoring itself firmly in a demand driven governance framework will contain numerous components. The prominent four components will be: (i) the introduction of competency-based training, (ii) greater involvement of the private sector at all levels, (iii) greater autonomy to training institutions, and (iv) improved information systems as well as the capacities to analyse the information and to integrate it into policy decisions.

The NSS reflects these essential components. The document stresses the need for generation of information and its analysis to feed into skill development policies and provisions and talks about labour market signalling, the use of tracer studies, the construction of a job opportunity index, and sector studies. Labour market information and analysis (LMIA) will require increasing NAVTEC's capacity, but also its ability to commission research as well as facilitating the production of LMIA by other organisations.

A potentially key institution in this regard is the LMIA Unit in the Ministry of Labour and Manpower. Whereas earlier efforts at the LIMAU were focused on development of basic infrastructure to analyse existing data and produce regular reports, European Commission funding is financing the International Labour Organization (ILO), on the one hand, to support the NSS and, on the other, to develop capacity to generate information and analysis to support the strategy. Whereas the initial efforts focused on trends in key labour market indicators to inform employment and labour policies, current efforts attempt to raise the level of analysis and steer it closer to the requirement of the skills policies. For NAVTEC it becomes of key importance that this attempt is successful in terms of LMI and associated institutional linkages.

At the same time, the European Commission as well as the Government of Netherlands has committed funds through GTZ for wider support to the operationalisation of the NSS. Successful implementation of this programme will depend to a substantial extent on achieving the objectives in the current programme. For two reasons system reform efforts in the TVET sector are complex and take a long time to complete; one, the technical agenda itself can only be implemented gradually, and two, the pace of change can be compromised by issues of political support and a reluctance on the part of the public sector to cede power, resulting in slow institutional change. In this complex process fraught with difficulties, the role of LMIA can end up being neglected. NAVTEC will need to cater to this reality and ensure that LMIA is at the centre of the reform efforts.

There are different approaches for undertaking labour market analysis to inform skill development, and these range from signalling through enterprise training surveys to stakeholder driven forums as well as econometric modelling. In the context of a reform towards a demand – or market-driven TVET system, the key is to establish linkages with the private sector to ensure its greater involvement in the development of a reoriented TVET system. The central attempt under the NSS in this regard is the establishment of pilot Industry Advisory Groups (IAGs) for key industries like construction. These handful of IAGs have been established with British Council assistance and are in their early stages and their institutionalisation remains a challenge. They are modelled on the sector skill councils and are expected once mature to play a pivotal role in providing industry intelligence about current and future skill needs. Already they have produced standards for a number of trades, based on which curricula need to be developed. The IAGs in Pakistan are a long way away from the sophisticated functioning of the councils that Cordozo has referred to in another article. Substantial issues of adequate funding aside, there are issues related to the autonomy of these pilots as well as linkages to the policy and governance framework for the sector. A lot of work is required before the IAGs can play the sort of role in generating the labour market information and analysis that, say, the Canadian Tourism Human Resource Council plays. The operationalisation of the wider NSS therefore is substantially dependent on the institutionalisation and vibrancy of these instruments of the public-private interface.

LMIA systems will play a key role in successfully translating the NSS into reality and reforming the current supply-driven TVET system to a demand-driven one. The three challenges in this regard for NAVTEC are not to lose sight of the centrality of LMIA within the wider reforms, establishing strong and credible institutional linkages with the LMIA Unit in the Ministry of Labour and Manpower, and encouraging and supporting the development and evolution of IAGs as key mechanisms for private sector voice reaching policy making forums specifically with reference to market intelligence.

Resources

Canadian International Development Agency Background Paper:
Technical and Vocational Education and Training, <http://www.acdi-cida.gc.ca/acdi-cida/ACDI-CIDA.nsf/eng/NAT-824104736-KCT>

Planning for Technical and Vocational Skills Development, Kenneth King and Robert Palmer, Paris 2010, UNESCO, <http://unesdoc.unesco.org/images/0018/001895/189530e.pdf>

Labour Market Information and Analysis for Skills Development, Theo Sparreboom and Marcus Powell, Employment Working Paper No.27, 2009, ILO Geneva http://www.ilo.org/wcmsp5/groups/public/--ed_emp/documents/publication/wcms_108627.pdf



merSETA
MANUFACTURING, ENGINEERING
AND RELATED SERVICES SETA

South Africa

merSETA

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Labour Market Information in South Africa: The Quest for quality data in a developmental context

Introduction

The importance of quality labour market information in the South African context is particularly pressing. There is an overall need to track the nature of the labour market for key governmental programmes to succeed. In general, all policy is directed at the need for ensuring that the quest for: Decent Work, Poverty Reduction, Equality and Growth (New Growth

Path, 2010) is responded to. Labour Market Information (LMI) in South Africa is essentially managed by a central government authority, Statistics South Africa (StatsSA), tasked with the responsibility of providing the quantitative information necessary for economic and labour market data.

StatsSA provides key LMI on labour demand and supply and intervening mechanisms. While it is also likely that more specific information is also collected by private and other parastatal entities, it does not have the legitimacy of the information collected and disseminated by the national entity tasked with this responsibility. This short piece, will, therefore focus on the data collection of this entity as the primary source of national labour market statistics in the country.

The National Data Gathering Entity

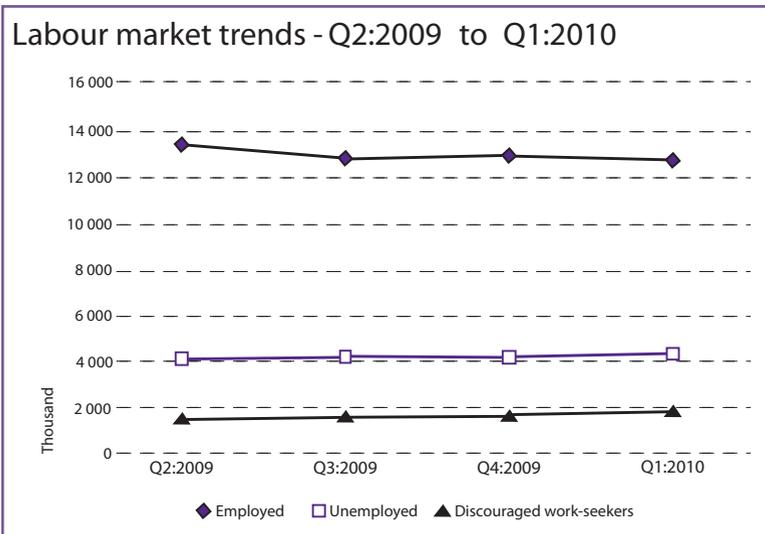
Statistics South Africa is tasked to provide, “high quality statistical information” in order to contribute to the developmental goals of South Africa (StatsSA 2010). Information is collected regarding the “economic”, “demographic”, “social”, and “environmental” information to inform public policy. Its mandate requires it to produce information regarding national economic growth, price stability, employment and job creation, life circumstances, service delivery and poverty, demographic profile, and population dynamics. In keeping with national legislation, the organisation is funded by the government and is tasked with increasing revenue, with the proviso that any unexpended or unappropriated funds are to be surrendered to the National Revenue Fund (StatsSA, 2010).

In terms of economic data collection, a key feature of its mandate is the quarterly estimates of GDP to measure level of economic activity on 10 sectors. Statistical information is also collected on eight primary, secondary, and tertiary sectors including, Mining and quarrying, manufacturing, electricity, Water and Gas, Construction, Wholesale and Retail, Transport, Storage, and Communications. Key data is released monthly, six weeks after the reference month. Financial information is also collected on forestry and fishing, mining, manufacturing, electricity, construction, trade, transport, business services community and personal services, and government. The key thrust of the data gathering is designed to enable monitoring of the government goals of halving the rate of unemployment and of those living in poverty by 2014.

The Labour Market Survey

Statistical information on labour market dynamics is currently undertaken by means of Quarterly Labour Force Surveys (QLFS). Information is collected quarterly and the continuous collection and dissemination of labour market information, i.e., especially national employment and unemployment data, enables effective tracking of key features of the labour market. Information is published by StatsSA as core labour market indicators four weeks after the end of each quarter. An annual report and supplementary data is published six months after the end of each calendar year. An illustration of published data is provided below:

Figure 1: Labour Market Data



Source: Statistics South Africa (2011): Annual Report, 2010/11, p. 51.

Methodology

Genesis of SA labour market information collection since 1994

The nature of the labour market information has changed since 1994. Between 1994 and 1999, the annual October Household Survey (OHS) represented the principal vehicle for collecting labour market information for the whole country. This was replaced by a Labour Force Survey (LFS) in 2000, which, since 2008, has been replaced with the Quarterly Labour Force Survey (QLFS).

The OHS collected information from respondents about a diverse range of issues relating to birth, deaths, and various census-related data. The OHS therefore essentially comprised cross-sectional surveys with different sample designs. Over the years, the labour market component of the OHS questionnaire was also changed to accommodate both national requirements in terms of providing information to South African policy-makers and international requirements that conformed to the standards of the International Labour Organisation (ILO).

As mentioned, the Labour Force Survey (LFS) replaced the OHS in March 2000. It represented a more comprehensive assessment of labour market data in South Africa until 2007. LFSs were undertaken on a six-monthly basis - March and September of each year. As a survey more aligned with labour market issues than its predecessor (the OHS), the bulk of the non-labour questions were channelled to a General Household Survey. In addition, LFS data collected data at one point in time during a particular month.

The Quarterly Labour Force Survey (QLFS)

In June 2005, consultants from the International Monetary Fund (IMF) reviewed the scope, coverage, timeliness, and frequency of the LFS resulting in the introduction of the Quarterly Labour Force Survey (QLFS) in 2008. This continuous collection of data during a specific quarter was also accompanied by a range of changes including a review of the items (some removed and other included), and some changes to the definitions of key labour market concepts.

Key changes included the following. Firstly, while non-market production activities were regarded as employment in the LFS, they were excluded from the definition of employment in the QLFS. Secondly, while the derivation of unemployment is similar between the two surveys, the reference period for determining unemployment in the LFS is different. Thirdly, a much tighter definition of discouraged work-seekers is employed in the QLFS compared to the LFS (i.e. those that have not attempted to find work in the past week). This definitional consideration is illustrated following:

Figure 2: The Labour Force Framework



Source: StatsSA (2008:5)

Figure 2 shows that the working age population is divided into two broad labour market groups – persons that are employed and those that are not employed. Persons that are not employed are further divided into those who are unemployed and those who are inactive. The critical, and widely criticised definitional consideration, is that this strategic change tended to artificially reduce unemployment. By extracting “discouraged workers” (those that did not take active steps to find work) from the unemployed and thereby introducing what is referred to as a “narrow” definition of unemployment, the official number outside of the labour market was reduced. The conventional definition of unemployment was, therefore, subverted by a strategic definitional consideration. Thus, it is convention in South Africa to refer to “narrow” and ‘broad’ definitions of unemployment, with the latter between 4 and 7 points higher than the former.

Usages of LMI

The collection of information in the South African context is underpinned by a felt need to ensure that the success of government programmes can only be assured by a rigorous assessment of where we are in dealing with numerous developmental challenges. The LMI in place provides those broad indicators. The Minister responsible for national Planning, Trevor Manuel, warned delegates at an international statistics conference to ensure that, “we measure (or deploy others to measure on our behalf), because we don’t know the answer or don’t know nearly enough”

(StatsSA 2010). He urged that measurement was the starting point for further development and engagement with the wider developmental challenges that we face. Clearly the need to measure key developmental constructs will go a long way in ensuring the success of measures in place to respond to these. Thus the national demand for uniform statistics is underpinned by a very real need to enable the monitoring of the performance of state and government programmes, in order to for informed development planning and decision making.

Key users of LMI are the various Sector Education and Training Authorities (SETAs)³. Charged with the responsibility of responding to the skills development needs of particular sectors; SETAs use a skills development levy to enable companies to undertake their skills development responsibilities. However, SETAs are also charged with the accurate collection and reporting of labour market information in their particular sectors. The latest National Skills Development Strategy, 2011-2016 (NSDS III) points to the crucial need for regular, accurate, and appropriate collection and dissemination of labour market information in particular sectors. Thus the first (of eight) national development prerogatives identified in the NSDS III policy proposal is for “Establishing a credible institutional mechanism for skills planning” (DHET, 2011). The future role of SETAs is critical in this regard:

SETAs play an important role in gathering statistics and other relevant information on labour market skills needs and training provision. Their close contact with industry places them in a good position to document and communicate recent and emerging trends, as well as to develop solid baseline indicators. Such information is essential in planning to meet the country’s skills needs and guiding investment in education and training provision. (DHET, 2011, p.12)

Thus in response to the lack of a “standardised framework for determining skills supply, shortages and vacancies, and (an) integrated information system for skills supply and demand across government” (ibid, p. 12), NSDS III intends to provide an accurate information base for effective collection of LMIS information.

3 There are 21 Sector Education and Training Authorities as at the latest re-establishment proposals published by the Minister of Higher Education and Training.

Challenges

Two challenges with national data need to be mentioned.

SETA and StatsSA data

There is an overall need to enable alignment between various economists and labour market entities using the data to agree on key definitional variables. For instance, the definition of manufacturing in sector education and training system is not standard. The manufacturing SETA incorporates elements of Motor Vehicle Manufacture, New Tyre, plastics, Metals fabrication, and Motor Retail (including sales and service). Data relevant to this SETA is thus not available in national datasets and is not easily discernible from the Standard Industrial classification (SIC) codes by which the national labour market is divided.

Thus information related to the New Tyre sector, in particular, is not available in national datasets. Thus the latest sector skills plan (2010/11-2015/6) makes the following point about the nature of the data available to make considered decisions about the future development of the sector:

Although merSETA has separate chambers for new tyre manufacturing and other rubber products, national data sets do not make the same distinction. Thus, the analysis presented here addresses the rubber industry in the aggregate, taking into account all rubber product manufacturers collectively. Tyre manufacturers, as a distinct feeder industry to the automotive industry, may have peculiar trendlines that would be important to analyse given the disruptions that have occurred in recent times.

Definitional Consideration: Employment and Not Employed

The definition of those in the labour force is somewhat problematic in terms of determining the official rate of unemployment. As espoused in this short analysis, StatsSA QLFS distinguishes between those “employed” and “not employed”, as opposed to unemployed. The “unemployed” category is subsumed within the “not employed” and excludes those who did not take ‘active steps to find work’ and who were not available to work in the survey period. While this distinction is useful, it does tend to blur actual unemployment by a few points. The actual unemployment figure quoted is thus the ‘narrow’ definition (and often a lower figure) of unemployment.

Conclusion

The nature of LMI is critical to effective tracking and monitoring of government and private sector labour market data. The country's challenges of unemployment, poverty reduction, and a race-based legacy of advantage and disadvantage are still unfortunately ever present. Mechanisms and strategies to deal with these adequately are dependent on the collection of adequate and legitimate labour market information, that could be compared over time to assess its effectiveness or otherwise. There is, nevertheless, an ever-present need to ensure that the various state entities will need to ensure that agreement is reached over key definitional variables so as to synergise interventions.

References and web source

- DHET (Department of Higher Education and Training) (2011) National Skills Development Strategy III, 2011-2016. Pretoria.
- DPRU (Development Policy Research Unit) (2009). The impact of the economic recession on the South African Labour Market, Fact sheet 2.Changes in Employment: Key Findings. Cape Town. University of Cape Town.
- StatsSA (Statistics South Africa) (2008) Guide to the Quarterly Labour Force Survey Report number: 02-11-01. Pretoria, South Africa. (Statistics South Africa, August.)
- Manufacturing, Engineering and Related Services Sector Education and Training Authority, website: www.merseta.org.za

United Kingdom

Alliance of Sector Skills Councils

Alliance of Sector Skills Councils

Bob Windmill, Managing Director, Sapience Consulting

Bob Windmill has held a number of roles within the Sector Skills network in the UK. This commenced with Energy and Utility Skills – the sector skills council for the gas, power, waste management and water industries – as a Lifelong Learning Manager and subsequently Head of Research. In this role Bob delivered a number of key labour market intelligence reports and a suite of supporting projects. Bob then took a 12 month contract with the Alliance of Sector Skills Councils, where he developed and implemented an LMI programme which used SSC LMI to highlight key cross sector issues and a CPD programme for SSC researchers. Bob is currently the managing Director of Sapience Consulting. www.sscalliance.org

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Sukky Jassi joined Improve, the Sector Skills Council for Food and Drink Manufacturing and Processing in August 2010. Sukky has since led on the production of the Sector Skills Assessments reports and more recently has authored the Skills Action Plan for the Food and Drink industry on behalf of the Department for Environment, Food and Rural Affairs.

Prior to joining Improve, Sukky was a Senior Research Fellow at the Policy Research Institute which primarily involved the delivery

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Labour Market Intelligence – the story behind the numbers

In the UK, a network of 22 Sector Skills Councils (SSCs) represent employers about all matters relating to skills. SSCs are employer-led and primarily designed to build a skills system that is driven by employer demand. In return for its license and a core funding payment, each SSC is required to deliver against the following remits:

- ◆ Employer Engagement
- ◆ Labour Market Intelligence
- ◆ Standards and Qualifications

These respectively allow an SSC to understand its employers' views and interests; articulate the underpinning current and future drivers of skills and the associated implications; and to ensure that the sector's standards and qualifications are fit for purpose and meet the employers needs.

Why LMI?

The key purpose of Labour Market Intelligence (LMI) is to provide the evidence to inform decision making and action planning. The quality of LMI being judged as much by the outcomes that it leads to, as the robustness of the supporting research processes.

A skills body is required to be influential; therefore it requires a specialist LMI function to enable the delivery of the following:

- ◆ Past, present and future skills drivers
- ◆ Predict current and future skills requirement, both temporally and spatially
- ◆ Development of options for change
- ◆ Influence policy makers
- ◆ Broker skills solutions
- ◆ Assess and evaluate the effectiveness of its interventions

Intelligence vs. Information

In the UK the terms Labour Market Information and Labour Market Intelligence are interchangeable, but increasingly are seen as distinct entities, each having different but complementary strengths.

Labour Market Information, as its name implies is the raw data collected from various sources using a range of techniques. It is information that is purely descriptive and can be either qualitative or quantitative information. The primary use of this information is to describe the interaction between employers and occupations as well as how the labour market is functioning and the subsequent identification of available resources and employment opportunities. There are three major components of Labour Market Information:

- ◆ Economic and labour force information (e.g. numbers in employment/unemployment across industries/sectors, salary information)
- ◆ Occupational information (e.g. descriptions of occupations and job roles)
- ◆ Demographics (e.g. age, gender, ethnicity, location of general population in relation to employment)

Labour Market Intelligence is the interpretation and analysis of the Labour Market Information to enhance its practical application to skills issues. While the two concepts are separate, in practice they are used simultaneously, with data (Labour Market Information) reported in a context (Labour Market Intelligence) relevant to the understanding of the needs of the sector to identify the problem that needs to be solved.

“Whilst labour market information is data found in original sources, labour market intelligence is a term that is used to refer to information that has been interpreted and analysed, with insights and conclusions drawn from it. It might look for example at trends over time and the implications of these trends for employers and government, and often involves bringing together information from several sources. It also points to possible recommendations and action. In other words, labour market information is used as a tool in creating labour market intelligence. (UKCES, 2009; p7)

Measuring the Future

SSCs in the UK have determined that the challenge for skills bodies is to develop methods of assessing skills issues in the short, medium and long term. The significance for SSCs is the development of more qualitative insights of the future, based on futures research which can be monitored to identify emerging trends that are sector specific.

It is generally accepted that quantitative forecasting models will incorporate broad trends, (such as economic growth and employment figures), but are limited in their ability to predict “Black Swan” events *

UK SSCs are increasingly using a wide array of techniques to illustrate credible predictions of future skills needs and to track how the issues identified are developing and impacting on the sectors they represent. These techniques include the development of forecasting models, scenario planning and horizon scanning. From these, future skills issues are identified along with their associated triggers; horizon scanning is the process used to track those triggers and identify potential “Black Swans”.

**In Europe it was assumed that all swans were white, as that was what was could only be observed until Australia was discovered and black swans were seen as the norm there.*

Making sense of what we know

At the heart of Labour Market Intelligence is the quality of the processes used in its development. This cycle of policy review and analysis; research to address gaps and weaknesses in knowledge; consultation on emerging thinking and communication, using a variety of channels and delivery formats; and creation of action plans is illustrated in the attached diagram.

It has been found that it is better to regard LMI development as an ongoing programme of capability development – the capability being that of achieving positive influence on key stakeholders – which is delivered through a series of key LMI reports and publications both at sectoral and national economy level.

What we do with what we know

The view of Government and employers on LMI is that it should be judged by the actions and outcomes that it leads to. Pure research has a valuable role in developing theory and informing practice, and it is important that labour market researchers make use of such resources.

It has become apparent to SSCs that the three broad areas of delivery including policy development, informing the development of standards and qualifications and brokering skills solutions all require different forms of LMI. Skills providers are often concerned about the issues relating to their immediate locality and require information for the short-term planning of provision. Whereas central Government are interested in broader strategic information to inform and assist with policy development and funding decisions. It has become critical for SSCs to be able to produce Labour Market Intelligence that is appropriate in its content, format and dissemination. In recognition of the aforementioned issues, UK Commission for Employment and Skills (UKCES) published the Common LMI Framework (UKCES, 2009) which all SSCs are expected to comply with. The Framework explains:

- ◆ the main LMI outputs that SSCs are required to produce;
- ◆ the minimum requirements of SSCs in terms of their lead role in collecting, analysing and communicating sectoral LMI to employers, individuals and policy makers; and
- ◆ what constitutes good practice in SSC LMI.

The common LMI framework was designed by the UKCES as a part of its role in building a strong and credible network of SSCs providing a coherent employer voice on skills issues. The rationale for the development of the Common LMI Framework was to ensure that SSC LMI is of the outstanding quality required for stakeholders, policy makers, individuals and employers. In addition, the Common LMI Framework provides SSCs a structure to ensure that LMI is consistent and comparable.

“The framework captures the specific role of SSCs as the leading authorities in sectoral LMI. Key to this is the role of SSCs in bringing together information from ‘top down’ data sources (such as data from national surveys, for example) with ‘bottom up’ intelligence (more in-depth, specialist analysis and insight), in order to achieve a comprehensive and unrivalled understanding of the skills issues in their sectors”. (UKCES, 2009; p3)

The LMI produced is used to inform each SSCs suite⁴ of annual Sector Skills Assessment (SSA) reports which is essentially a repository of LMI relating to the sector being represented. The reports identify actions arising from the LMI and the subsequent outcomes across the UK nations. Key skills priorities that the SSC will be taking forward are also documented in the SSAs. This link to action is critical for the credibility of an SSC.

Communications

SSCs are obliged to communicate their research through the publication of a variety of reports. These have to clearly show and explain the research and analysis outputs and the usage such information and intelligence can be put to.

An example of how the Sector Skills Alliance undertook a review of all the annual SSA reports submitted by SSCs (this was previously 23) to identify key cross sector themes. The output of this exercise was a research report for each of England, Northern Ireland, Scotland and Wales. While well received by the national stakeholders, it was felt that something more focused and digestible was needed. The decision was that Alliance should, in consultation with national stakeholders, produce a series of topic-specific briefings on key themes such as Leadership & Management, the increasing use of technology, and the implications of the aging workforce.

The feedback from national stakeholders has been that such an approach would be of real value on the basis that valued particularly if the focus of the briefings was around deficit reduction and the place of skills recovering from the global economic recession.

Assessing Value

Like any effective organisation a skills body must regularly review both its performance – is it going about its business in an efficient and cost effective manner – and its effectiveness – is it achieving the outcomes and impacts that it desires. It is clearly part of the intelligence of a skills body that it knows and can demonstrate the value of its interventions based on robust and accurate LMI.

A classic measure in assessing a skills body's contribution to increasing national productivity. It is clear from the activities of the SSC that the effects of any skills interventions are masked by the wider overall trends in their sector, particularly in light of the recent global economic

⁴ UK report; UK summary report; England report, Scotland report, Wales report and Northern Ireland report.

downturn. However, any argument presented suggesting that the situation would be worse without the labour market interventions designed by SSCs are very difficult to substantiate.

In assessing and evaluating the impact of skills interventions a wide range of methodologies can be employed, including the following:

- ◆ Using financial information and data generated from the intervention, to conduct a Cost Benefit Analysis.
- ◆ Assessing outcomes on learners and employers through both qualitative and quantitative research.
- ◆ Longitudinal research studies which track the benefits of skills interventions over a period of time, to capture the impacts and affects over the longer term.
- ◆ Use of the sophisticated approach of Social Return On Investment⁵ (SROI) by systematically including consideration of factors such as proximity (how close the effect is to the intervention) and consideration of other inputs. SROI is an approach to understanding and managing the impacts of a project, organisation or policy. It is based on stakeholders and puts financial value on the important impacts identified by stakeholders that do not have market values.

Whatever the process, it is critical that SSCs demonstrate the value they are adding to the sector they represent.

Summary

In summary, Labour Market Information is the collection of primary and secondary research undertaken using qualitative and quantitative techniques. Labour Market Intelligence is the interpretation and analysis derived from that information, which results in the insights required to evidence policy making at a local and national level. LMI highlights both the opportunities and market failure which subsequently enable the planning of effective labour market interventions to drive innovation and productivity in a knowledge economy.

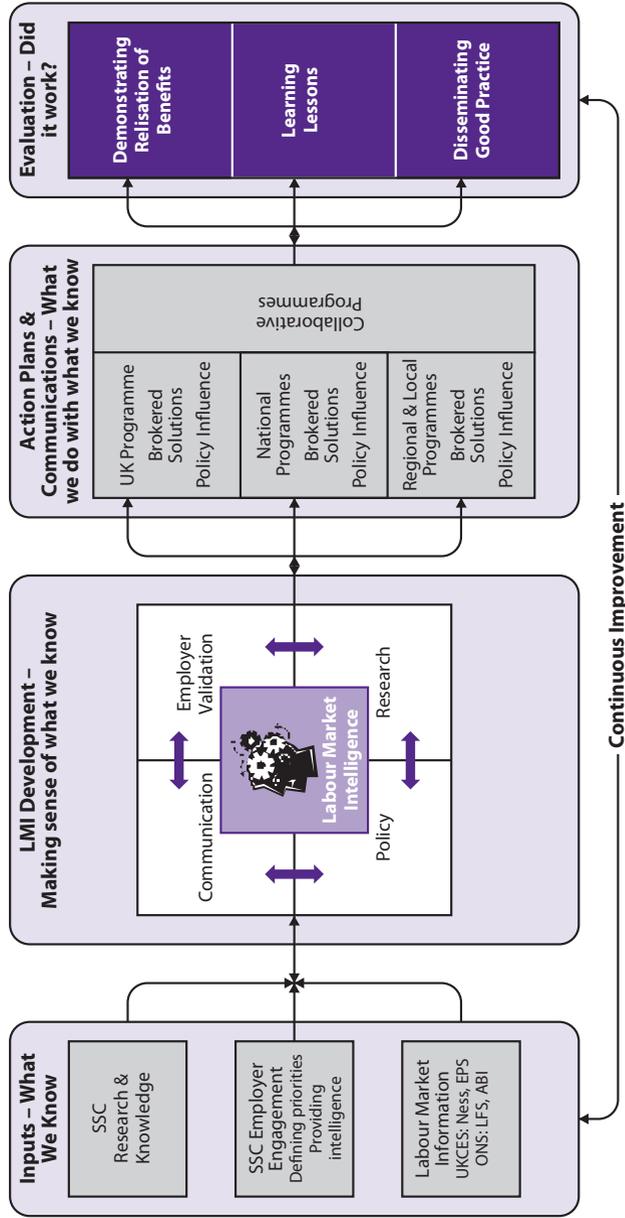
References

UK Commission for Employment and Skills (2009) Information to Intelligence: Common LMI Framework. UKCES.

⁵ Please see the following website for more detail: <http://www.sroinetwork.org>

SSC Labour Market Intelligence

"Its not what we know, it's what we do with what we know"



The International Network of Sector Skills Organisations (INSSO) exists to support the work of national sector skills organisations through the sharing of best practice.

“Globalisation is placing new demands on education and training systems worldwide. The sector-based approach is uniquely bridging that gap, helping industry partners and educators, ultimately access more employable people who are better skilled. INSSO exists to identify and share international best practice through a sectoral approach.”

Tom Bewick, Chair of INSSO

The objectives of the network are to:

- a. **Share international best practice and information** on sector-based approaches to skills training.
- b. **Enable and facilitate the develop transnational standards** and learn from specific sector-based solutions (e.g. employability skills).
- c. **Facilitate international links between sector skills organisations**, potentially including formal exchange programs of technical expertise and staff.
- d. **Carry out research and analysis** to support these activities.

Find out more about becoming a member by visiting **www.inssso.org**

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