

**Social dialogue and skills development:
Tripartite approaches to training in Singapore**

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Executive summary

This paper outlines the development of tripartite approaches to training and skills development in Singapore in recent years, which involves a high level of cooperation and collaboration between the government, employers and unions. While numerous factors are responsible for Singapore's rapid economic development, various tripartite initiatives in the skills and workforce development fields have played a crucial role in Singapore's success. In 2003, the Singapore Workforce Development Agency (WDA) was established to enhance the employability of Singaporeans and help them adjust to the changing economy which is based increasingly on knowledge-driven industries in the service sector and less on the traditional manufacturing. The Skills Development Fund, which is based on collections from the Skills Development Levy on employers, has also provided financial incentives for training on a cost-sharing principle. Recent initiatives by the WDA include the Lifelong Learning Endowment Fund and the Job Re-Creation Programme which aims to assist workers during periods of economic restructuring. Research indicates, however, that well-educated workers with higher earnings are more likely to participate in training and reap the rewards than lower paid, less well-educated workers. Hence, there is a need to extend training to the more vulnerable members of the workforce. While Singapore has made significant progress in skills enhancement and successfully engaged the social partners to collaborate in training policy and development, it is nevertheless important to look forward to future development. The concept of sustainable skill ecosystems may be useful to explore in Singapore as a means of developing a 'high skills equilibrium' based on firms using high skills and innovative practices. Some skills ecosystems projects have been developed in Australia within specific industries in order to develop networks which can more effectively train and retain workers, particularly where skills are scarce, and contribute to operational efficiency. Singapore may find that a skills ecosystem approach provides a useful framework within which to develop sustainable skills and training programmes, within and across various industries, while preserving the advantages of their tripartite approach.

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1. Tripartism

Introduction

The term ‘tripartism’ is used here refers to the process of cooperation whereby governments consult and involve representatives of employers and workers in the formulation of socio-economic policies at the national and industry levels and in particular, on the legal framework of labour relations and labour-related policy. Tripartism builds dialogue and consensus between the social partners: the governments, employers, trade unions and workers. It brings together the actors capable of identifying problems in the world of work, and above all, finding possible solutions to them.

Tripartism should ensure that views of major social partners’ are reflected in the policies and laws formulated. It should also provide social partners with opportunities to contribute to socio-economic progress, and thereby enable them to fulfill a wider role than one of only providing direct services to their members in relation to matters covered by the employment relationship.

Tripartite arrangements – both formal and informal – that may be adopted (consultation fora or bodies) are the means which give effect to the basic objectives of tripartism.

To be effective, development policies need to be negotiated in order to balance as many interests as possible. For this purpose, there is a need to ensure the setting up of effective mechanisms for consultation.

The role and attitudes of governments are important in determining whether tripartism will be cosmetic or effective. However, the capacity of the social partners to contribute to tripartite dialogue and to influence policy formulation are equally important in transforming what may otherwise be a cosmetic exercise into a meaningful and effective process. Therefore, all the tripartite constituents have a role to play in ensuring the effectiveness of tripartite consultative mechanisms.

There is no universal model of tripartism that can be recommended to every country, because the form it assumes in each country must suit a variety of national characteristics. However, for tripartism to operate effectively there are certain basic and necessary conditions. These include the recognition of the right of employers and workers to belong to organizations of their own choosing, and the capacity of such organizations to influence policies on matters which affect the interests of those whom they represent.

The role of employers and their organizations

Employers’ organizations have two main roles. The first is to influence the policy and legal environment relative to labour market/labour-related issues so that they are conducive to business growth and development. This role is usually discharged in two ways, through tripartite dialogue and through bipartite dialogue separately with unions and government.

An employers’ organization should be viewed as both a lobbying and service organization, with delivery through policies formulated by elected officials in consultation with the staff and professionally skilled staff.

It is important for employers' organizations to seek a broad consensus on national goals and on how best to achieve them. There may be cases of disagreement where it is difficult to achieve consensus. For instance, privatization and the nature and extent of foreign investment are still the subject of disagreement; such disagreement may be due to different perspectives on national goals or on the way to achieve them.

In whichever type of economy, there is an on-going debate on regulation versus deregulation of the labour market. The debate is often misconceived when expressed in this way, because the true issue is between regulations that obstruct the smooth functioning and development of the market, and those that are needed for the proper functioning of markets.

Therefore the issue is not whether or not there should be government intervention, but what interventions are appropriate and facilitative. In addition, there are minimum rules needed to promote social, and not only economic, objectives and progress. The types of interventions needed for the proper functioning of the market are numerous. By way of example, they include rules for the efficient operation of financial markets, education and training policies, industrial relations, protection of property, enforcement of contracts, rule of law and a legal system consistent with a market system, e.g. a system of courts dispensing justice on objective principles and rules against monopolies which also foster competition.

Conditions for effective employers' participation in tripartism

Employers' organizations can discharge their roles and participate effectively in tripartism only if certain pre-conditions are fulfilled.

First, employers need to unite and make their organization representative of employer interests. It is less effective where individual employers seek to influence policy and legislation. If the organization is not adequately representative, its views will tend to be ignored since they would not be considered as reflecting the views and concerns of employers as a whole.

Second, the organization should be highly 'professional' i.e. it should have the means (staff, knowledge, skills) to prepare, support and debate positions. In order to be 'professional', a high level of staff skills and capacities is necessary. These requirements are also relevant in making the organization representative through increased membership. In a democracy, employers' organizations, unlike workers' organizations, will not be listened to or taken cognizance of especially by politicians, on the basis of votes which the organization could influence. Therefore employers' organizations in such countries have to depend on their representativeness and professionalism, though no doubt their political connections (like those of unions) also count.

Third, labour and social policy, like economic policy, has to be formulated on relevant facts and data. Consequently, employers' organizations must possess the ability to support their positions with relevant data and information which is possible where such organizations have the capacity for research and information collection, and for analysis of that information. This is important not only to influence the other two constituents in a particular policy direction, but also to win public support for their position on any given issue.

Fourth, sound bipartite relations with representatives of employees enhance the possibility of achieving a consensus on national development goals, the means to achieve them, and on labour relations issues which are addressed through tripartite processes.

Fifth, governments should be willing to consult with employers and take into account their concerns (Sriyan de Silva, 1997).

Tripartism and workers' participation

The inherent weakness of labour under capitalist business regime means that worker organizations forming the third pillar of tripartism has to be shored up to ensure that their participation would be responsible, meaningful and effective. First, workers' rights for collective organization have to be respected and enshrined legally. Second, worker education has to be prioritized. On the other hand, labour must be cognizant of the intensification of global competition and how this was basically driving profit maximization strategies such as labour flexibilization and outsourcing, constant technological upgrades and hence, the need for regular re-skilling.

While capital that are unable to compete fall by the wayside, so will worker obsolescence lead to labour market exclusion. The immediate employment status and livelihood of workers cannot rely on protective legislation alone. Training is an imperative. In Singapore, unions have expanded their role tremendously into rounding up a whole generation of workers for re-training to prolong their "shelf-life" as living labour. Educational and skills deficiencies from previous era have to be topped up to enable "matured" workers to continue working.

2. The tripartite system in Singapore

Singapore is a good example where tripartism and social dialogue have been practised since the inception of industrialization. While authoritarianism was responsible for the initiation of the system, the relative success of Singapore's industrialization has prompted others to look at how the system delivered a relatively high standard of living for its workers besides establishing a stable and rational society able to withstand crisis and erratic turns of capitalist business cycles. While it cannot be said that the relative success of Singapore is all due to the nature of its industrial system, it can be said that the tripartite character of its industrial system does play a major role in providing a comparatively predictable investment site for MNC-led development and long-term political and social stability.

This case study of tripartite collaboration in Singapore relies primarily on published and unpublished materials from relevant agencies and institutions such as the Ministry of Manpower(MOM), the Workforce Development Authority(WDA) and the National Trade Union Congress(NTUC, the sole confederation of trade unions to which the majority(93 percent of a total of 68 labour unions are affiliated [NTUC 2007]) In a situation where useful information on labour is lacking in the public domain, speeches of political figures and state officials are another source of "inside" data. However, interviews with officials from the three parties involved in tripartite collaboration have been added to supplement information derived from official documents.

A major milestone in the development of tripartism in Singapore can be traced back to the formation of the National Wages Council (NWC) in 1972. Over the past 35 years, the tripartite NWC has been instrumental in keeping wages competitive and responsive to global competition. Tripartite cooperation was critical for the success of Singapore's productivity drive launched in 1980. It was vital as the Singapore's economy had to be restructured continuously. As the local unions were consulted and involved in launching the productivity movement, union representatives understood its necessity and supported productivity movement, shifting from labour intensive to more capital and technology intensive operations.

One way of living with capitalism is to use social dialogue to enhance accommodation and tolerance when diverse parties have to live and work with each other. The primary goal of social dialogue is to promote consensus building and participation among the major parties involved. Once successfully established as a custom, social dialogue has the potential to amicably resolve major problems of production and distribution and thus ensuring political/social stability and smooth functioning of the social and economic system despite battering from both domestic and exogenous sources.

The role of the state is crucial to the success of social dialogue even when the state does not play a dominant role. The state has the capacity to create a stable political/civil climate that will make social dialogue, and not conflict, become the more attractive option for parties when manoeuvring their contrary interests. The state also guarantees the legal and institutional framework to ensure that agreements can be carried out.

Tripartism is an important means of establishing social dialogue. Tripartite cooperation refers "to all dealings between government and workers' and employers' organizations concerning the formulation and implementation of economic social policy". The Tripartite Consultation (International Labour Standards) Convention, 976 (No. 144) especially requires effective consultation between government, and employers' and workers' representatives at each stage of ILO standards-related activities. A number of other conventions such as those regarding minimum-wage fixing, and the worst forms of child labour also foresee consultation between government, labour, and employers' organizations.

Tripartism in Singapore cannot be totally transferred to another social context as the inception, evolution and subsequent success of tripartism there came about through the historical conjunction of a multiple diversity of forces.

For any system of tripartism to work, it has to be credible to both employers and labour. The rapid and sustained expansion of the Singapore economy over the past decades has been built on the expansion of the middle classes, as well as the underlining aspirations and hopes of both the government and the union movement that the fruits of economic development trickle down to the rest of the working population.

In 2006, in a move to consolidate tripartism, the concept of a platform to engage a wider cross section of the key decision makers and opinion leaders in the Singapore business community, labour movement and the government was introduced. Its aim was to strengthen and institutionalise tripartism for economic competitiveness and a brighter future for all. In November 2006, the Singapore Tripartism Forum was established and it held its inaugural forum in the setting of a dialogue with Prime Minister Lee Hsien Loong in January 2007.

3. Singapore's strategy for training and skills development through tripartism

The history of training and skills development in Singapore

On 1 April 1998, the Ministry of Labour in Singapore was renamed the Ministry of Manpower (MOM). The main role of the Ministry then was primarily for promoting stable and peaceful industrial relations, safeguarding workers' health and safety and creating a disciplined and productive workforce. The result of emphasizing on these functions was that Singapore experienced three decades of industrial peace and high productivity that had attracted foreign investments into Singapore and kept these investments profitable.

The new Ministry's mission was to develop a workforce capable of competing successfully in the global market. Due to global proliferation of information technology together with the increasing mobility of capital and labour, Singapore's strategy was to develop a globally competitive workforce to support the demands of the new economy.

In mid 1999, the government launched Manpower 21 to support Singapore's goal of becoming a knowledge-based economy with critical knowledge-driven industries. It was hoped that the repositioning of the Ministry would lead to a more integrated model of manpower planning and development. The specific goals are to enhance the efficiency of the labour market, encourage lifelong learning among workers and to develop a workplace environment that would attract, develop and motivate people to excel in their jobs. The organisation of the ministry became more complex due to introduction of functions such as manpower planning, foreign manpower management and manpower development, necessitated by the economic changes in the mid 1990s.

In September 2003, the Singapore Workforce Development Agency (WDA) was established to act as a catalyst to champion workforce development. It aims to enhance the employability and competitiveness of both employees and job seekers by helping them to adapt to a changing economy.

The broad goals for training and skills development

In the knowledge economy, the real value of the company or country is found in its human and intellectual capital. MOM has implemented integrated manpower planning which includes the implementation of lifelong learning for lifelong employability; augmentation of Singapore's talent pool through the recruitment of foreign talent; transformation of the work environment to encourage flexible work arrangements and job re-designs and the development of a manpower industry.

In early 2000, the Manpower 21 Plan was launched with the objective of recreating Singapore as a hub of continuous learning for lifelong employability and as a country where the government, employers, unions, community organisations work in unison to achieve the country's goals.

Singapore recognizes that the concept of a lifetime job and skill is no longer tenable in an economy experiencing globalisation and rapid technological change. Workers at all levels are expected to change, not just in terms of skills but possibly

including careers over their working lifetimes. Workers will have to make greater efforts to ensure their employability, which is the ability to find a job, maintain a job and change a job, should the need arise.

Based on a long tradition of tripartite cooperation, Singapore has effectively established the training culture firmly in its national psyche that when the recent prolonged recession hit, workers could be channelled into a variety of new training schemes that were designed to help them get back into the workforce.

4. The role of the NTUC in the tripartite approach to training and skills development

At the Singapore Tripartism Forum in January 2007, Prime Minister Lee Hsien Loong, emphasized the importance which his government placed on cooperation with employers and trade unions. The President of the NTUC, John De Payva noted that tripartism in Singapore, which began with the formation of the National Wages Council in 1972, has been instrumental in keeping wages competitive with other parts of the world as well as maintaining high levels of productivity. He nominated training as a significant element of Singapore's success with tripartism and instanced the Skills Development Fund, established in 1979, as a key factor in Singapore's economic development. The NTUC has joined with government and employers to foster skills upgrading as a means of enhancing workers' employability and thereby achieving better wages and conditions. Some of the key initiatives of the NTUC over the past three decades in relation to skills development are as follows:

- 1982: NTUC Skills Development Secretariat established to raise skills levels, especially in relation to IT.
- 1996: NTUC Skills Re-development Programme to encourage employers to enable workers to gain training which will lead to certification.
- 1998: NTUC Education and Training Fund (N-ETF) to provide subsidies to union members to undertake skills upgrading themselves.
- 2001: NTUC Surrogate Employer Programme to reduce training costs for union members who do not have employer support, by acting as their surrogate employer and obtaining government funding for their training.
- 2002: NTUC Job Link to provide assistance to unemployed workers who are seeking employment.
- 2006: NTUC Job Re-creation Department to re-create jobs for unemployed workers to retain workers so that they can achieve better pay and conditions.
- 2007: Merger of NTUC Skills Development Department (housing the Skills Development Secretariat) and the Job Re-creation Department into Employability Enhancement Department
- 2007: NTUC Employment and Employability Institute to focus on enhancing the employability of workers through various methods.

The current focus of the NTUC on employability enhancement is not only through training but also through job preparation, job matching, job creation and design and job re-creation. One of the new initiatives is the establishment of the Employment

and Employability Institute (E2i) which has a new campus facility in which a number of learning activities and programmes are undertaken. The NTUC's E2i aims to create a 'one stop shop' for jobseekers and workers to access various employment and employability services as several training providers offering generic and vocational skills training are housed at a single location and embrace life long learning. Examples of these providers are the Singapore Culinary Institute, Taxi Academy and NTUC Learning Hub. Hence, workers can readily access workshops for work preparation, job seeking and employability across a range of industries including hospitality, retail, security and health care.

An example of the tripartite approach to industry re-development and training can be seen in the landscape industry. In September 2007, a memorandum of understanding was signed between the NTUC and the Centre for Urban Greenery and Ecology (CUGE), with the support of the employers in the industry, to create more opportunities for people to undertake training and gain employment in this industry. The industry re-development scheme involves a combination of inputs from the Employability Enhancement Department (EED), for funding and placement support, from the E2i, for facilities and back-end support, and from training providers like the NTUC Learning Hub (LHUB) for training expertise.

The National Parks Board, landscape industry association, NTUC and WDA cooperate with CUGE to create and re-create jobs for workers who have received training. An example of how low wage workers benefit from JRP is when their productivity and job worth are enhanced through better work processes and mechanising operations and they are trained to take on a higher-level skills job like landscape technicians. Nicer uniforms and shades are added for an image makeover to make the job more attractive and suitable for locals. Landscape technicians can earn up to \$1,200 each month compared to gardeners who earn only \$800 per month.

The WDA has collaborated with the landscape industry to design training systems for different types and levels of landscaping jobs. The landscape Workforce Skills Qualifications (WSQ) system provides a range of national qualifications which are recognised by landscaping employers. The skills development programmes have been created by the CUGE and are jointly established by the National Parks Board and the WDA to advance and share knowledge in the use of greenery and ecology to enhance the urban living environment in Singapore.

5. The Skills Development Fund

The Skills Development Fund (SDF) was established in 1979 to support employer-based training. It has become an effective national tool for the nurturance of a training culture amongst the working population. It provides financial incentives for training on a cost-sharing principle. The SDF is financed by collections from the Skills Development Levy (SDL).

Over the years, training grant commitments from the SDF have grown in step with the pace of training activities, and have outstripped SDF collections. "In 1998, the SDF committed more than S\$88 million in training grants but collected only S\$20 million, indicating greater willingness to send workers for training and higher commitment of the workforce to go for training." In 2004, the SDF supported 546,078 training places compared to 60,956 in 1983 and 564,375 in 1998.

The SDF forms an integral part in inculcating a lifelong learning culture in Singaporean workers. In 2006, the SME figure for SDF-supported training places was 86,800. To enhance SME employees' access to training, the SDF introduced the SME Upgrading for Performance (SUPER) scheme in November 2003 to incentivise skills training among SME employees.

The Skills Redevelopment Programme (SRP) under the SDF was expanded and refined for the purpose of skills upgrading and retraining. Launched in late-1996 as a joint set-up by the NTUC and Economic Development Board (EDB), SRP is one initiative to enhance the employability of the Singapore workforce, particularly the older and less-educated workers. NTUC was the sole SRP manager in 1998 and the administration has since come under the WDA in Jan 2007.

The SRP aims to incentivise employers (by subsidizing course fees, absentee payroll and wage support) to send employees for certifiable training. It targets especially the company-sponsored workers who are low skilled, mature, unemployed and retrenched (via the Skills Training and Employability Enhancement for the Retrenched (STEER) and unemployed workers). The government's allocation to fund this programme amounted up to \$120 million apart from the \$50 million sourced from the SDF. To date, the SRP supports more than 1,400 certifiable course modules. The increasing pace of training places provided has surpassed the Prime Minister's target of 100,000 by May 2003 (NTUC Online)

Together with the Productivity and Standards Board (PSB), EDB and tertiary institutions, MOM provided a grant of S\$50 million with a matching contribution of another S\$50 million from the SDF, to expand the SRP in order to reach out to more workers. By March 1999, approximately 200 companies have committed to send a total of 17,800 workers for training.

From July 1998, the SRP has been launched in all key manufacturing and service sectors, as well as the hotel and catering, marine, telecommunications and disk drive sectors of the economy. The SRP facilitator scheme allows ethnic self-help groups such as the Chinese Development Assistance Council (CDAC), MENDAKI and Singapore Indian Development Association (SINDA) to sponsor displaced or unemployed workers for training with the government providing financial support.

In order to tackle the unemployment situation arising from the economic crisis in the mid and late 1990s, the MOM had launched the "4R" strategy in 1998. This involved the renewal of the workforce through training, the redeployment of displaced workers through employment placing and matching, the realignment of work processes and employment practices to preserve jobs and the revitalising of employment creation through seeding new jobs.

The SRP was revised such that co-funding rules could encourage employers to train and recruit lower-skilled workers aged 40 and above. The SRP absentee payroll support was increased for mature workers from 70% to 85% in 2001 and then to 90% in 2005. In other words, employers who send their older and lower-skilled workers for SRP training will now save 50 percent of their absentee payroll (Former Manpower Minister Lee Boon Yang at the official opening ceremony of Adaptec Manufacturing Singapore Pte Ltd).

For example, when car park wardens from the Housing and Development Board and Urban Redevelopment Authority were made redundant by mechanization of car park gantries, something had to be done for these workers

who had spent years issuing parking fines and lack of skills to seek alternative employment. The wage funding component of the SRP served as an incentive for the employer to send these mature workers for suitable training to equip them for re-employment.

Other measures to enhance the employment of older workers include the ADVANTAGE! Scheme established by WDA to encourage companies to employ workers over the age of 40 years old and re-employ those beyond the retirement age of 62 years. This scheme supports various initiatives from job redesign and automation projects, wage restructuring, employment and re-employment and other efforts to retain the services of mature workers. WDA has also recently enhanced its Advantage! Scheme to encourage companies to start re-employing their existing workers before the government introduce the legislation effective on 1 Jan 2012 which will require all companies to re-employ their existing workers, beyond the retirement age of 62

The enhanced Scheme provides a comprehensive package of up to \$400,000 incentives per company. Companies that are registered or are based in Singapore (Economic Survey of Singapore 2005, p.32) are qualified to apply for this scheme. This scheme supports individual company's initiatives and efforts in the following areas:

1. Recruitment of new workers aged 40 and above,
2. Retention of existing workers aged 55-61, and
3. Re-employment of existing workers aged 62 and above.

An example of a firm using the ADVANTAGE! Scheme successfully is the SBS Transit Ltd. This public transport company has effectively tapped the ADVANTAGE! Scheme to re-employ 50 retired Bus Captains to work as mentors to newly recruited drivers. As a result of this move, the existing Bus Captains are relieved from their previous mentoring role and can focus on driving and safety on the roads. These retired mentors play a useful role in orienting new drivers into their jobs and have a stabilising effect on them.

Copthorne Orchid Hotel and M Hotel are other notable examples of firms that have made their work environment more conducive for older workers by redesigning the work processes through the ADVANTAGE! Scheme. Grants from ADVANTAGE! were deployed to retrofit housekeeping trolleys with motors to reduce the level of physical work strain. A consequence of this initiative was that another 13 workers could be employed. In the meantime 64 other older housekeeping attendants will also benefit from having the physical load of their jobs lightened.

The WDA will set aside S\$30 million over the two years for this scheme (Singapore Budget 2006). (For more details on the Enhanced Advantage Scheme, please refer to www.wda.gov.sg)

6. Agencies and institutions involved in training and skills development

The Singapore Workforce Development Agency

The Singapore Workforce Development Agency (WDA) established in September 2003, leads national effort to build a skilled workforce, with which businesses and industries can maintain their competitive edge in the new economy. Skilled workers can in turn get better jobs, leading to a better quality of life. Working with industry, unions, employers, economic agencies, professional associations and training organizations, WDA aims to raise industry competitiveness and enhance workforce employability by supporting industry growth, raising workforce skills standards, enhancing employability of workers and bridging structural skills gaps.

To help workers upgrade their skills, WDA launched a national skills and qualifications framework in October 2005. Called the Singapore Workforce Skills Qualifications (WSQ) system, it spells out the training and certification pathways for workers to enhance their skills and capabilities, and how companies and industries can upgrade their workers' skills standards. Taking a sectoral approach, workers can acquire industry and occupational skills required to perform their jobs.

To help build Singapore's manpower capabilities, WDA has also introduced industry-specific initiatives like the Place and Train (PnT) programmes that plug manpower and skills gaps. PnT programmes have been established in wide-ranging industries such as food and beverage, aerospace, textile and chemical processing. These programmes help to train and create a pipeline of local workers that employers can tap on.

NTUC, SNEF, CDCs and self-help groups

Besides helping in-employment workers, WDA also created access to employment opportunities for job seekers through the Distributed CareerLink Network (DCN), which was formed together with 13 partners in Singapore such as the National Trades Union Congress (NTUC), the Singapore National Employers Federation (SNEF), Community Development Councils (CDCs) and self-help groups.

The WDA enhances the competitiveness and employability of workers and jobseekers by helping them to adapt to a changing economy. To achieve this, it works with various industry leaders, labour unions, employers, economic agencies, professional associations and training organizations. It also supports the growth of Singapore industries by building a pool of competent workers through constant upgrading of workers' skills and raising industrial performance standards.

The agency does this by developing a comprehensive, market-driven and performance-based adult continuing education and training framework. It also works with other economic agencies to promote the enhancement of human and intellectual capital in Singapore. In collaborating with employers, workers, labour unions, economic agencies, education institutions, industry associations and training providers, the WDA seeks to enhance the employability of workers in a globalising economy.

The Ministry of Manpower

As the Singapore economy restructures, workers will risk becoming unemployed when their skills are no longer relevant because old jobs are phased out. However the Ministry of Manpower (MOM) aims to grow new activities and create new jobs and workers will have to adopt new skills and capabilities in order to stay employed. Such work is carried out by the WDA which was set up as a statutory body under the MOM. The WDA attempts to facilitate re-training of workers whose skills are less in demand and redirect them into other high growth areas where talent is needed.

It further attempts to go beyond incremental skills upgrading to analyse the manpower situation in an industry, identify critical skills shortages, bridge the gap and achieve industry competitiveness. This includes transforming service standards through workforce upgrading. It also aims to equip low-skilled workers with basic skills to maximise their chances of finding jobs and progress together with Singapore.

The WDA's objective is to develop an effective, authoritative and competency-based training infrastructure. The practical skills and knowledge acquired would help workers across all levels remain relevant in their changing workplace. The WDA also provides courses for managers and workers to equip them with new skills allowing them to stay economically relevant. Together with NTUC and SNEF, workshops are conducted to help human resource officers, union officials and managers understand the steps of effective performance-based management process and learn how to ensure performance-based management stay relevant and useful in the organisations to enhance competitiveness.

The Singapore Professionals and Executives' Co-operative

In line with the programmes of the WDA, the Singapore Professionals and Executives' Co-operative (SPEC) has set up a Management Consultancy Interest Group to provide services such as job redesign, market feasibility studies, business plan development, operational reviews, business re-engineering, strategic planning, branding, seminars and training workshops.

There are training programmes and joint initiatives by the WDA and agencies such as the Media Development Authority (MDA) and Logistic Institute Asia Pacific (TLIAP) to enable workers to align their skills with international standards and enhance the executives' ability to develop fresh perspectives and solutions.

The Skills Development Levy Act

The establishment of the SDF with the institution of the Skills Development Levy (SDL) Act encouraged employers to invest in skills upgrading of the workforce. Under SDL Act (Cap. 306), it is a statutory requirement for employers to make SDL contributions for all employees who fall within the salary ceiling for levy contributions including casual, part-time, temporary and foreign workers. With effect from 1 September 2005, the salary ceiling for SDL contributions is \$2,000. The levy rate is 1% and a minimum of \$2 is payable where the remuneration is less

than \$200. The levy collected is used to provide training assistance to encourage employers to upgrade their skills of their workers.¹

After many years of the existence of the SDF, it becomes logical to extend the training culture to the concept of life-long learning and worker employability. The concept of continuous training is now easily acceptable, especially amongst the younger generation of workers. Adult education is in the process of establishing a comprehensive WSQ Framework.

7. The Workforce Development Agency's Programmes

The Lifelong Learning Endowment Fund

The Lifelong Learning Endowment Fund (LLEF) was established on 12 March 2001. Its objective was to enhance the employment and employability of Singaporeans through initiatives that promote and facilitate the acquisition of skills. Being an endowment fund, it was intended that LLEF should provide a steady stream of funding for lifelong learning initiatives. It is governed by the LLEF Act and managed by MOM and WDA.

The objects for which the income of the LLEF may be applied are set out in Section Five of the LLEF Act. Besides employer-based training, the LLEF can also be used to support individual-based or community-based training. It is meant to complement and supplement existing funds such as the SDF and Manpower Development Assistance Scheme (MDAS), and to provide longer-term support in place of funds that could be closed in the future.

The programmes funded by LLEF focus on initiatives related to employment and employability. It will not be used for supporting other training initiatives such as personal enrichment courses. Programmes will be developed in partnership with industry/trade or employer associations, community organisations, self-help groups etc and priority will be given to programmes targeted at those who face challenges in coping with the structural changes in the economy and labour market.

Through these efforts, the WDA envisions an economy where manpower will be Singapore's number one advantage. (For more info see the LLEF annual report at www.wda.gov.sg)

The Job Re-Creation Programme (JRP)

Another measure to help boost employment and employability while Singapore undergoes economic restructuring is the JRP launched on 5 March 2005. This programme aims at redesigning jobs which are considered as difficult, undesirable and poorly paid and shunned by the working segment of the population. The recent erratic economic downturns, SARs and terrorism have made individuals realise that they have to lower their expectations when seeking employment.

JRP seek to redesign these jobs to improve the working conditions, work processes, and productivity so that pay levels could be enhanced and more Singaporeans would be gainfully employed.

¹ More information on SDL is available at the "Resource Centre", at www.wda.gov.sg and at www.sdf.gov.sg

In 2005, 7,200 vacancies scattered over 12 sectors (Childcare, Education, Retail, Hospitality, Landscape, Security, Public Transport, Marine, Healthcare, Construction, Environment and Marine) were identified and 4,600 job seekers were found to fill these vacancies under the JRP. The programme had benefited predominantly the lower-educated and older workers who were most likely victims of mass retrenchment. 78% of the programme beneficiaries had less than secondary level education and about 56% were above 40 years of age.

The programme showed that workers were more likely to take up jobs which were previously considered as poorly paid if these jobs had gone through the process of redesign. The Singapore Budget 2006 says that JRP will be ramped up to create 10,000 jobs a year and S\$40 million will be used to support these efforts over three years.

Today, the JRP aims to enhance the employability of workers and re-create jobs so that they have better skills, better jobs and better pay, resulting in better lives. Through JRP, programmes are developed to (i) make jobs more attractive and suitable for Singaporeans; (ii) help the unemployed secure a job; (iii) help workers with (low-paying) jobs to get better jobs; (iv) help workers to equip themselves with better skills for higher productivity and to secure better jobs; or (v) to remain employable and competitive. In 2006, more than 12,000 jobs were re-created under the JRP.

Job redesign

One way of making jobs more attractive in terms of pay is through job enlargement. For instance, in one hotel, the job of waiters/waitresses was enlarged to that of the Server who is trained not only to serve food and beverages but also to do cashiering, room service and guest checkout. With this redesign of the job, the Server now earns an extra \$100. Another example of job re-design is that of the bus driver. Working conditions were improved; e.g. provision of rest areas at interchanges and acquisition of better-equipped buses and pay packages are restructured to better reflect their wider responsibilities.

Creation of new job opportunities

Tripartite partners are also working together to back-source some jobs that were previously outsourced to external contractors who invariably import low pay unskilled foreigners for such work. Such jobs include many odd jobs done by porters, attendants and housekeepers in the healthcare sector. Forty-six per cent of these contract staff are foreign workers. One hospital had consolidated such odd jobs in wards into the single job position of Health Attendant. It was hoped that this measure will make the job attractive enough for Singaporean workers.

A more elaborate example is that which was mooted by the Singapore Teachers' Union (STU) to have the position of Teacher-Assistant (TA) who could provide valuable help to teachers in carrying out their non-professional/administrative chores. With their assistance, teachers could concentrate on enhancing their teaching. The Educare Schools Services Pte Ltd, a subsidiary of STU's Cooperative, Educare was established to provide the TA services to schools. Schools are given the flexibility by the Ministry of Education to hire TAs through their manpower grant. STU provided the training to prospective TAs with funding from the WDA. The project was started in January 2005. The TA does not teach but provides logistics support, which includes the

preparation of class materials, facilitating class group work and helping in co-curricular activities. They could also help to coach weaker students and 55 principals were involved in the initial pilot phase.

Re-employment via training

The NTUC initiated the STEER programme which is an extension of the SRP that links full-time SRP training to job placement when unemployment and retrenchment was high and the job market was shrinking around 2003. The Programme was set up to help laid off workers to take on new jobs (NTUC Online). Companies looking to hire the retrenched/unemployed can seek monthly wage support funding of up to 50 percent capped at \$1,000 per month for 3 months, along with attractive absentee payroll and course fees funding.²

Existing programmes include courses for Bus captains, Trainee Project Supervisors, Healthcare Attendants, Patient Care/Service Assistants, Enrolled Nurse, Commissary Cooks, Teacher-Assistants and Landscape Technicians.

Employability Camps, a type of “boot camp” are launched to give participants a feel for work in the new sector they will be heading for in their next employment opportunities. During the Employability Camps, organised by the NTUC Learning Hub, the participants are also geared up in their mindset towards getting a new job and on handling the changes and challenges that come along with it. Soft skills training like literacy, personal grooming, communications and interview skills are also covered during these camps.

Employability skills system credentialing

The Singapore Employability Skills System (ESS) credentialing project is aimed at getting organisations and training institutions to recognize ESS credentials, particularly Workplace Literacy (WPL) and Workplace Numeracy (WPN). Recognizing ESS means that the ES WPLN credentials can be used as an alternative criterion to the current academic qualifications such as GCE ‘N’ and ‘O’ levels for recruitment or admission purposes.

This alternate pathway opens up a bigger pool of eligible candidates for companies to meet their manpower demands. On the other hand, it also opens doors for better job placements or skills upgrading for adult workers who have missed out on the opportunity to pursue formal education.

ES WPLN credential are now recognized by more than 100 companies and training institutions ranging from tourism, F&B, retail, healthcare, logistics, manufacturing and security industries. To embark on the ESS credentialing project, companies and training institutions are required to identify:

1. The positions/courses that will be accepting ES credentials as an alternate entry requirement to the jobs/training modules accepting ES credentials.
2. The appropriate ES WPLN level that will be pegged as an alternate entry requirement to the jobs or training modules accepting ES credentials.

² The STEER programme has since been phased out with the return of strong job creation and low unemployment levels.

Upon confirmation of the positions/courses and pegging level of the credentials, WDA will issue a Letter of Acknowledgment to recognize the acceptance for the initiative. Companies and training institutions may then proceed to schedule their potential applicants for the Computer Adaptive Test at the Centre for Employability Skills (CES).

Tripartite mechanisms and processes

Tripartism and social dialogue are expressed through a number of mechanisms. Generally, at the national level, tripartism was ensured through institutionalization of the concept within decision-making structures such as boards of agencies relevant to the constitution of the economy and manpower.

The primary decision-making body designing economic policies in Singapore, the Economic Development Board (EDB) has 15 members out of which one is from the NTUC (Deputy Secretary-General Halimah Yacob). Two are academics, three are state representatives (mainly Ministry of Trade and Industry and nine come from the private sector. The Board is chaired by the EDB Chairman (Media Release, Ministry of Trade and Industry, EDB, 9 June 2008). Since this Board is at the forefront in drawing investments into Singapore, it is not surprising that the private sector has the predominant presence.

A more directly worker-relevant body, the Central Provident Fund (CPF) which has charge of the retirement funds of employees has 13 members out of which two are employees' representatives (President Lee of the Singapore Employees' Union and Director Yeo from the Industrial Relations Mentoring Department of the NTUC). One is an employer's representative. 7 members are placed under the "Others" category. They are one each from the Monetary Authority of Singapore (MAS), Chair and CEO of CPF, Chair of Singapore Land Authority, President of GIC Asset Management Pte Ltd, retired CEO of the Overseas Assurance Corporation Ltd, MD of Alphadyne Asset Management Pte Ltd and Chair of the Toronto International Leadership Centre for Financial Sector Supervision. Out of these seven, three are from state related bodies that have some direct or indirect relationship to the pension fund. For instance, employees are allowed to use their retirement funds for the purchase/long term lease of state-managed housing thus the chair of the Land Authority has to be present. The board is chaired by a retired MD of the MAS. The Deputy chair is the Second Permanent Secretary of the Ministry of Trade and Industry.³ (State representation seems to dominate in this board).

With rapid changes overtaking Singapore and its own domestic transformations, ad hoc committees have regularly been convened to help the state manage these emerging issues. The changing demography of Singapore seems to have taken the state by surprise although this could have been easily predicted earlier through long term statistical projections. As a result, a couple of committees have been established to investigate "problems" posed by an aging population (which would not have been a problem if this issue was factored into our economic planning). A National Longevity Committee was formed in 2007 to recommend to the government the design of a National Longevity Insurance Scheme.⁴

³ http://mycpf.gcpf.gov.sg/CPF/About-Us/Board-Mem/B_Members.htm Date [23 June 2008].

⁴ http://www.mom.gov.sg/publish/momportal/en/press_room/press_re [14 Nov. 2007].

Out of the 18 members sitting on this Committee, four are affiliated to the government, four are from the business community, five are from community groups, three from the unions and two are academics. The Committee is chaired by Professor Lim Pin (also the chairperson of the National Wages Council). For details of other tripartite committees, see Appendices, tables 1-3.

Additionally, Members of Parliament and Cabinet ministers could also occupy positions in the NTUC. Secretary General Lim of the NTUC was appointed Minister without Portfolio. Such measures further cement NTUC-PAP (ruling Party) integration (Straits Times 1980, 15th and 18th Sept) Earlier, some members of Parliament were already performing such dual roles (Straits Times 1979, 5 September). The Economic Review Committee (ERC), set up in 2001 by the then Prime Minister Goh to remake Singapore, was headed by the Deputy Prime Minister Lee H L., 9 state representatives, 2 NTUC representatives and 9 private sector representatives (1 from state linked group) Four of the seven sub-committees of the ERC were headed by government officials; two by the private sector and one by the NTUC representative Heng who is also a cabinet minister. The latter is an example of this second tripartite mechanism that works to integrate the NTUC with the ruling party. Heng first stood on the PAP ticket but lost in the 1997 election.⁵

Based on reports and the manner of implementation of recommendations of these so-called tripartite bodies, some inferences can be made.

Due to the dominance of the state in Singapore, initiatives to start tripartite-based programs can often be traced to the state. The state commonly initiates the formation, constitution and negotiation of tripartite processes. Most of these committees are chaired by state officials. Second, for the same reasons, the implementation process of tripartite recommendations is also facilitated by the state and supported by employers and the NTUC as seen by the similarity of programs advertised and given publicity in their respective websites. Moreover, only the state's reach to all its constituents has made it possible to quickly mobilize to revamp the economy or to come up with the rapid response needed for coping with often unforeseen problems arising from changing global trends.

However, as these processes are often kept under wraps, not much of the dynamics and compromises on which tripartite negotiations are based is made known except for anecdotes published long after events have taken place. For instance, see Ngiam (2006) and Lim (1998).

8. The impact of job training and skills development in Singapore

In this section, supporting data showing the impact of training were derived from surveys conducted by MOM in 2006 and 2007 (MOM 2007, Ang et al 2006)⁶

⁵ <http://app.mti.gov.sg/default.asp?id=525> [24 June 2008].

⁶ http://www.mom.gov.sg/publish/etc/medialib/mom_library/mrsd/ms.Par.31497.Filr.tmp/mrsd_employer_supported_training [31 June 2008].

Participation in training and skills development

Surveys by MOM (cited above) have shown that well-educated individuals and those with higher earnings are much more likely to participate in training programs than others.

Age has a small positive impact on training participation for workers who are under 37 years old. However, the effect becomes negative for older workers. This might be due to employers having less incentive to send their senior workers for training, either due to the higher opportunity cost or the narrower time horizon of reaping the benefits out of the training programme.

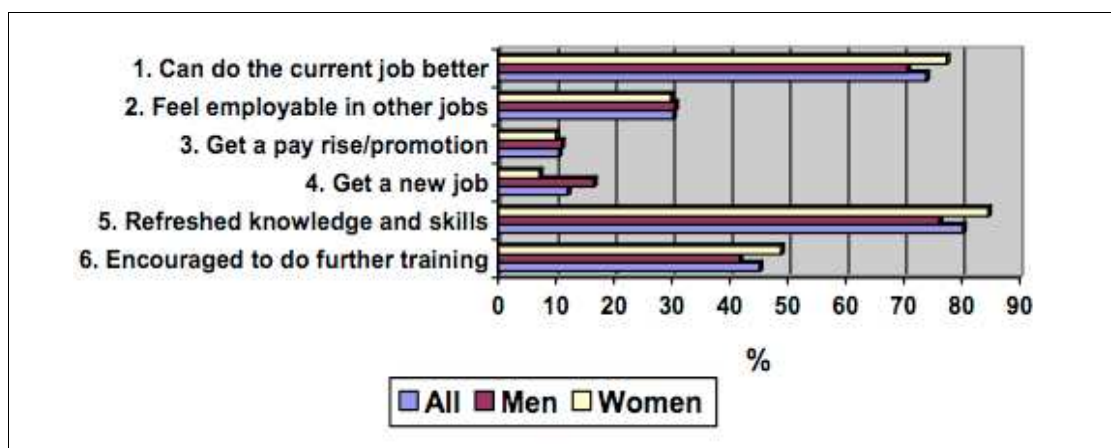
Occupational affiliations of the workers have a significant impact on their training participation as well. Broadly, production & related workers are most likely to engage in training. Compared to them, “working proprietors”, “managers and administrators” are less likely to participate in any type of training. This is due to the fact that both the direct and opportunity costs of training are very high for these workers.

Employers (with employees) are less likely to participate than employees and self-employed workers (without any employees). Females are more likely to participate in training programs, and married workers seem to be less likely to participate in training programs.

The outcomes of training and skills development

As shown in Figure 1, most respondents provided positive responses to training outcomes. The two most common outcomes cited were that training helped them do their jobs better and refreshed their knowledge and skills. Specifically, it was found that workers with relatively low earnings and have worked for 5 to 10 years (older workers) are more likely to view that training helps them in doing their current job better. This set of workers is the best candidates to be sent for training so that they can do their current jobs better.

Figure 1: Responses to training and skills development by participants



Source: Revised from Ang et al, 2006, Chart 4, p. 12.

Those with higher education tend to feel more employable in other jobs after training. However, beyond 14 years in education (or roughly upper secondary level), the relationship becomes negative. Similarly, workers with low earnings are

more likely to feel that training makes them more employable in other jobs. Workers in occupational groups such as labourers, cleaners, and other manual workers are most likely to feel employable in other jobs after training. Temporary and part-time workers also think likewise. However, findings for this outcome must be approached with caution, as much will depend on the objectives of training.

Lower paid workers are more likely to experience a pay rise or promotion after training, similar to workers who have worked on the job for 1 to 10 years. By occupation, workers who are engaged as managers, administrators, professionals, or associate professionals and technicians are least likely to experience a pay rise or promotion after undergoing training. This could be due to the fact that they are already earning a relatively high income.

Men are more likely to get a new job after going for training than women. This is similarly the case for temporary and part-time workers compared to full-time permanent workers. But workers with higher income are less likely to get a new job after training. Again, results for this outcome have to be approached with caution as the outcome may reflect their job search activity and the prevailing labour market conditions.

Younger (below mid-30s) and higher educated workers are more likely to feel that training helps them refresh knowledge and skills. Workers in public administration and defence, health and social works and other community, social and personal service sectors are most likely to feel that training helps them refresh their knowledge and skills as these industries are the ones that require frequent updating of knowledge and retraining. Age has negative effects on a trainee's decision to participate in further training. That is, older trainees are less encouraged to do further training than younger ones.

The role of training and skills development in the Singapore economy: Key trends

As Singapore transits to a knowledge-based economy, the role of the human capital will become crucial for the creation and diffusion of knowledge in the economy. Currently the economic structure of the Singapore economy is moving towards higher value-added activities, where the demand for skilled workers to drive production is constantly rising. This constant increase in demand for skilled workers will create a "skills gap" in the economy, where the demand for skilled workers outstrips the supply of skilled workers in the economy.

On the back of improved economic conditions, training participation among the resident workforce rose in the 12-month period ending June 2005, reversing two consecutive years of decline. 27% of residents aged 15 to 64 in the labour force were involved in some form of job-related structured training or education, which was higher than 25% in 2004. However, this is still lower than the peak of 34% recorded in 2002.

Age continued to have a negative impact on participation in training, which suggests that older workers are less likely to participate in training. Similarly, the higher the education, the more likely a person is to participate in adult training.

These two studies have shown that well-educated individuals and workers with higher earnings are much more likely to participate in training programs than others, even after controlling for industry and occupation. The decision to participate in training is not driven by their unobserved job related characteristics.

It was also discovered that workers in some industries, such as wholesale and retail trade, are less likely to participate in training programmes than workers in manufacturing industry. Workers' occupation affiliations have a significant effect on their training participation as well. For example, sales persons in all industries have a lower training participation rate than workers in other occupations. The difference in the cross-occupation and cross-industry participation rates likely reflects the difference in incentives to participate. Further studies on pinning down the factors that generate the difference in incentive, such as job turnover rate, government subsidies, skills requirement, could generate fruitful results.

Overall results on the estimation of the determinants of training outcomes indicate that relatively low paid workers are the ones that benefit most from training. Continued training support for this group is thus critical. Earnings are negatively correlated to many training outcomes and the highest paid occupational groups are often the ones to benefit least from training, which may reduce the sense of urgency for this group to re-skill themselves to adapt to a changing economy. Workers who have worked on the job for 1 to 10 years are likely to have the most successful training.

While the better educated are more likely to participate in training, the overall results suggest that low-skilled workers benefit more from structured training. This probably reflects concerted effort by the government to train and re-train workers to maintain their employability and relevance in the labour market. Recent evidence indicates that the labour market structure might be moving towards greater use of more flexible contractual arrangements. In this case, employer-based structured training might be less effective to train and re-train older workers and those on contracts, as employers are less likely to support such vulnerable workers for training. Adopting a more flexible and targeted individual-based training system, which reinforces WDA's move towards worker-based funding schemes, could increase the effectiveness of training.

Employers may now be more willing to support training because surveys of impact have consistently disclose training benefits to employers in the areas of retention(51 percent); productivity(88 percent); customer satisfaction(78 percent); quality of product and services(85 percent) and sales and profitability(53 percent). Due to Singapore's perennial problem with job-hopping, employers were originally reluctant to send their workers for training. On the part of workers, training often entails extra efforts on their part. There is also the problem of time squeeze as workers going for training would be confronted with reduction in family and leisure time. If all three parties were to only focus on their individual losses, the rate of training up-take would never have increased over the years. Of course, the recession end of 1990s and early part of 2000 brought on by the Sept 11, SARS and the Asian financial crisis could have upped training rates when retrenchment reached unprecedented highs.

9. Establishing sustainable skills ecosystems: Some experiences from Australia

While Singapore has achieved a great deal through its tripartite approach to training there is a need to move beyond narrow ways of thinking about training for particular jobs or firms and adopt the broader notion of 'skill eco-systems'. Rather

than focussing on short-term training supply strategies to address skill shortages identified by employers, the concept of skill ecosystems directs attention to the interdependency of multiple actors and policies in creating and sustaining the conditions under which appropriate skills can be developed and deployed in clusters of firms in particular regions.

The idea of skills being reproduced (or not) in the context of a particular labour market, and of the processes of skill formation as being shaped by labour demand factors and labour supply factors, as well as by industrial relations, training, industry, regional, taxation and welfare policy, derives from the idea of 'skill equilibria' (Finegold and Soskice 1988; Crouch, Finegold and Sako 1999; Keep and Mayhew 1999). A key insight of this research was that different nations and regions tended to develop a 'high-skill equilibrium' based on a cluster of firms using high skills and innovative practices, supported by a range of forces, policies and institutions. In examining high skill ecosystems such as Silicon Valley, Finegold argued that they were sustained by:

- an external catalyst for the regions' growth such as government demand or investment;
- fuel to sustain the growth such as good universities and venture capital;
- supportive infrastructure, a regulatory regime attractive to risk taking and an attractive living environment; and,
- interdependence between firms which facilitates learning, adaptation and development (Finegold as reported in Buchanan et al 2001: 22).

Finegold's original conception of high skill ecosystems has been extended by the recognition that similar structural and regional dynamics shape low skill ecosystems as well. Skill ecosystems can therefore be defined as 'clusters of high, intermediate or low-level competencies in a particular region or industry shaped by interlocking networks of firms, markets and institutions' (Buchanan et al 2001: 21). As suggested above, the dynamics of skill ecosystems are likely to be influenced by a wide range of policies and practices. Features that tend to structure skill ecosystems are as follows:

- business settings, including product market conditions, competitive strategies, business networks and financial systems;
- institutional and policy frameworks including both vocational education and training (VET) policy and other policy;
- modes of engaging labour including prevailing forms of employment;
- the structure of jobs including job design and work organisation;
- level and type of skill formation including formal and informal training on- and off-the-job (Buchanan et al 2001: 22).

Although these ideas and innovations are only now emerging in Australia, a number of pilot and demonstration projects and programs have been undertaken. One initiative sponsored by the federal government's Department of Education, Science and Training and managed by the New South Wales Department of Education and Training (Loble 2005b) has resulted in the commissioning of nine separate skill ecosystems demonstration projects. The projects are diverse but tend to fall into one of four project types (Windsor 2006):

- promoting the role of VET as an innovation partner in specific industries;

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- reshaping work and labour markets in a particular regional industry setting;
 - addressing regional and industry-specific skill and labour shortages;
 - improving quality across supply chains and networks.

The approach taken as part of the Skill Ecosystem national project is based on understanding skill development in the context of prevailing work organisation and forms of employment, labour market and product market dynamics, as well as training and skills formation practices. The demonstration projects have tended to start with the identification of a business or industry problem typically requiring a complex, multi-stakeholder solution. All the projects share an aim to improve the level of communication and collaboration between the ecosystem stakeholders who form the network. To different degrees, each of the projects aim to overcome some of the persistent problems encountered by both the traditional market and social partnership approaches to training: free-riding, poaching, under-provision and misallocation problems associated with market approaches, and flexibility, responsiveness and general coordination problems associated with social partnership approaches.

Some of the most innovative projects have encouraged employers to change job design, work organisation and skill utilisation as a means of improving skill formation, employee retention and operational efficiency. For example, the Queensland Community Services and Health Industry Training Council project has confronted the growing challenge of attracting and retaining allied health workers in the aged care sector in Queensland. The sector presently confronts increasing demand, labour shortages and pronounced cost containment pressures. The project has focussed on allied health aides and led to two workplace trials in which aides' jobs have been redesigned providing workers with increased autonomy, a wider span of duties, greater access to training and better supervisory support from allied health professionals. The aim of the project is to improve recruitment and retention and facilitate an improved capacity for allied health aides to work across a wider range of services.

Other projects have focussed more squarely on coordination problems that affect the quality of service delivery. The effective provision of mental health services requires high levels of collaboration and coordination between multiple agencies, and the NSW Central Coast Community Services and Health Industry Skills Council has sponsored an ecosystem project that has been investigating the barriers to more effective collaboration. The initiatives that have resulted from the project include the introduction of a service coordination model to enhance service provision for patients with dual diagnoses, a professional development program (entitled 'Walk a mile in my shoes') that involves staff exchanging roles to learn more about the work of other service providers, and renewal of the consultative committee enabling it to operate as a more effective collaborative network.

Yet other projects have attempted to improve the capacity of specific skill ecosystems to identify and supply the skills needed to take advantage of emerging regional opportunities. The Defence Support Industry Skills Network project in the Northern Territory is aiming to capitalise on the opportunities presented by the rapid expansion of defence support industries in the Territory. This emerging skill ecosystem needs to confront the challenges for small contractors in working with prime contractors for defence support contracts, the skill and labour shortages that are common in the region, and the need for effective information, skills and capacity sharing and coordination. The project is seeking to trial various initiatives

including multiskilling and labour sharing, sponsorship of training programs coordinated by prime contractors but including staff from subcontractors, and programmes to increase the labour force participation of the partners of existing defence personnel in the region.

While the Australian Skill Ecosystem national programme is still in its embryonic stages these demonstration projects underline the potential of this new approach to understanding and developing skills. Replacing a traditional focus on training provision with a conception of workforce development, and understanding skill formation in the context of skill ecosystems rather than simply focussing on aggregate level skill shortages, allows networks to develop constructive and sustainable responses to skill formation challenges. But if skill ecosystem approaches are to represent a meaningful advance in policy, they need to do more than simply satisfy employers.

Traditional, 'employer-responsive' approaches run the risk of simply responding to individual employer preferences and desires for financial subsidies without leading to any change in the level of skills developed and deployed, the portability of skills, the quality and volume of work available and the access to quality training and career development opportunities. Thus, in addition to industry responsiveness, the skill ecosystems policy approach needs to promote other objectives: enabling the alignment of VET policy with industry and regional policy, ensuring greater efficiency in skill utilisation by reducing the level of skill wastage, contributing to a more skill-intensive economy and encouraging industry to take more responsibility for skill formation in the long term (Windsor 2006: 42).

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Appendices

Training programmes of the Workforce Development Agency⁷

Appendix A. Place and Train (PnT) programmes

Appendix B. Chefs Programme (CRAFT)

Appendix C. Professional Conversion Programme (PCP)

Appendix D. Local Immersion Programme for the Process Industry

Appendix E. Adult Learning

- Singapore Workforce Skills Qualification (WSQ)
- Singapore Employability Skills System (ESS)
- National Skills Recognition System (NSRS)

Appendix A. Place and Train (PnT) programmes

The Place and Train (PnT) programmes offer a unique arrangement where potential employers first select jobseekers before they undergo training. This allows jobseekers, which may not have prior working experience in a particular industry, to receive more targeted training and are assured of a job before training begins.

To date the following PnT programmes have been launched:

- Aerospace Re-skilling for Operations Plus (AeRO Plus)
- Place and Train – Tour and Travel Services
- Construction Re-skilling for Employment (CORE)
- Construction Re-Skilling for Employment Plus (CORE Plus)
- Marine Re-skilling for Employment (MariNE)
- Process Industry Re-skilling for Employment (PRocEss)
- Place and Train – Attractions
- Diploma in Nursing (Accelerated) – Registered Nurses
- Place and Train – Enrolled Nurses
- Place and Train – Food and Beverages
- TEACH – for Mandarin Preschool Teachers

Aerospace Re-skilling for Operations Plus (AeRO Plus)

The Aerospace Re-skilling for Operations Plus (AeRO Plus) programme aims to skill-up jobseekers with no prior work experience to take up technical jobs in the aerospace industry.

Trainees will undergo a three-month theoretical and basic skills training that is conducted by the Air Transport Training College (ATTC), the training arm of

⁷ For more information and details of the forms of funding available for all these programmes, see the WDA web site: http://www.wda.gov.sg/Programmes/Place_and_Train_Programmes/

Singapore Institute of Aerospace Engineers. Upon completion, trainees will receive a certificate that is recognized by the Civil Aviation Authority of Singapore.

This will be followed by an on-the-job training that is conducted by the employer company on its premises. Upon completion, trainees will receive an industry-recognized certificate.

Companies may also opt to participate in the AeRO programme, where they send trainees for the theoretical and basic skills training at ATTC but do not provide on-the-job training.

Place and Train – Tour and Travel Services

The Place and Train (Tour and Travel Services) Programme is developed to train locals with no or little prior experience to take up jobs at operational level, e.g. Tour Consultants, Travel Consultants, in Tour and Travel Services sector; to plug the gaps in both the training delivery as well as the skills level in Tour and Travel Services sector; and to support industry growth by providing pipeline of skilled local workers. There are 2 options for trainee to select:

Option A (travel services)

Duration: 148 hrs (Institution Training), 380 hrs (On-the-Job Training)

Option B (tour operations)

Duration: 144 hrs (institutional training), 384 hrs (on-the job training)

Each module will start with institutional training, followed by structure on-the-job training and assessment.

Institutional training

- Lectures, discussions, demonstrations, case studies, practical exercises, activities and assessments.

On-the-job training

- Workplace demonstration of knowledge, skills and abilities. Structured OJT plan will be developed by TMIS.

Trainees must complete secondary school education or WSQ Literacy And Numeracy Level 4.

Training allowance: Eligibility for funding support

Trainees must/must be:

- Singapore citizens or permanent residents
- Company-sponsored
- Complete full training and pass all training assessments
- Enroll for the programme within 3 months of employment
- Stay with the sponsoring company at least for 3 months after the end (completion) of the training

Construction Re-skilling for Employment (CORE)

The Construction Re-skilling for Employment (CORE) programme was created to help re-skill jobseekers with no prior work experience in the construction industry for trade foremen jobs, in the construction industry. The programme adopts a “place and train” approach where companies first recruit jobseekers before sponsoring them for the selected CORE Plus Specialization course.

Trainees will undergo theoretical and practical skills training at the Construction Industry Training Institute. This will be followed by an on-the-job training over 6 months that is conducted by the employer company on its premise. Upon completion of the whole programme, trainees will receive an industry-recognized certificate.

The basic entry requirements are:

- Singaporean or Singapore permanent residents
- Physically fit
- Minimum secondary school education or WDA Employability Skills System (ESS) Workplace Literacy and Numeracy 5
- Able to speak and write in English.

Construction Re-skilling for Employment Plus (CORE Plus)

The Construction Re-skilling for Employment Plus (CORE Plus) programme was created to help re-skill jobseekers with no prior work experience in the construction industry for tradesmen jobs, in the construction industry. The programme adopts a “place and train” approach where companies first recruit jobseekers before sponsoring them for the selected CORE Plus Specialization course.

Trainees will undergo theoretical and practical skills training at the Construction Industry Training Institute. Participants who have attended at least 75% of the training sessions and sit for the prescribed assessments will be awarded Certificates of Successful Completion.

The basic entry requirements are:

- Singaporean or Singapore permanent residents
- Physically fit
- Minimum primary school education
- Able to speak and write in English.

Marine Re-skilling for Employment (MariNE)

The Singapore Workforce Development Agency (WDA), in collaboration with the Association of Singapore Marine Industries (ASMI), launched a Place and Train programme for the marine industry – the Marine Re-Skilling for Employment Programme (MariNE) in May 2004.

The programme aims to select displaced workers from other industries and equipped them with relevant trade skills to enhance their employability for tradesmen jobs in the marine industry. The programme adopts a place and train

approach where jobseekers are first employed by companies before being sent for training.

Training under MariNE is skills-orientated and practical-based. The MariNE programme includes 352 hours of practical training over eight weeks. Upon completion of the eight-week training, the trainees will be required to sit for the relevant skills test in the specific trades.

Successful trainees will be awarded an industry-recognized Skills Evaluation Test (SET) Level 1 and commence work with the respective companies.

Requirements

- Primary education
- Physically fit

Salary payment

Employees will receive a minimum basic salary of \$900 monthly during the training period. Upon acquiring the relevant skills certification, employees will receive a basic monthly salary of \$950, which will be raised to \$1000 after a year of service.

Funding subsidy from the WDA

The WDA will provide funding support for course fees, absentee payroll, practical training and subsequent wage support.

Process Industry Re-skilling for Employment (PRocEss)

The Process Industry Re-skilling for Employment (PRocEss) programme aims to skill-up jobseekers with no prior work experience to take up jobs in the process industry.

Trainees will undergo 12 days (i.e. 96 hours) of training that is conducted by the Chemical Process Technology Centre (CPTC) in Jurong Island.

Upon completion of the above training, trainees will receive an industry-recognized certificate in “Basics in Process Plant Maintenance.

Requirements

- Preferably possess a NITEC or equivalent certificate

Place and Train – Attractions

Objective

- To equip locals with no or little prior experience in the Attractions sector to take up jobs at operational level, e.g. as frontline staff.
- To support industry growth by providing pipeline of skilled local workers.

Trainees can choose either (a) full WSQ Certificate in Attractions, or (b) modular WSQ units. Upon successful completion of training and passing assessments, trainee receives a nationally recognized Statement of Attainment (SOA) for each WSQ unit.

WSQ Certificate in Attractions

Core units:

- Interact with guests
- work safely
- provide safety and security for guests

Electives (choose 4):

- deliver tours
- maintain displays
- promote tourism
- provide visitor information
- sell products and services

WSQ Professional Tourism Ambassador Course

- interacts with guests
- promote tourism

WSQ Professional Tour Host Course

- interacts with guests
- provide safety and security for guests
- deliver tours

Trainees must complete secondary school education or WSQ Literacy and Numeracy Level 4.

Eligibility for funding support

Trainees must/must be:

- Singapore citizens or permanent residents
- Achieve at least 75% attendance
- Complete full training and pass all training assessment
- Stay with the sponsoring company at least for 3 months after the end (completion) of the training

Diploma in Nursing (Accelerated) – Registered Nurses

The Diploma in Nursing (Accelerated) is targeted at augmenting the pool of healthcare manpower in the following ways:

- Assist healthcare institutions to convert and train existing non-healthcare trained⁸ Singaporean to take on healthcare positions.
- Assist non-healthcare trained Singaporean who are keen to work in the healthcare sector to embark on long-term professional healthcare careers by acquiring relevant healthcare training.

Currently, the Diploma in Nursing (Accelerated) is a two-year full-time programme conducted at the School of Health Sciences at Nanyang Polytechnic.

⁸ Non-healthcare assistants, non-nursing and non-allied health professionals.

The prerequisites for the programme are as follows:

- Singaporeans or permanent residents.
- Holding a degree from reputable universities or diploma from local polytechnics.
- At least two years of full-time working experience.
- No prior healthcare-related work experience or qualifications similar to the training sought.

Application process

Step 1. Individuals interested in applying for Diploma in Nursing (Accelerated) can submit their online applications.

Step 2. Individuals, if selected, will go for interviews at the healthcare institutions. Only short-listed applicants will be notified.

Step 3. Upon successful interviews and selection by a Singapore-based healthcare institution, the healthcare institution will register the individual for the Diploma in Nursing (Accelerated). Successful individuals will sign a training deed with the respective sponsoring healthcare institution and be bound by the terms and conditions of the support provided by the healthcare institution.

Step 4. Thereafter, the individual will be sent for training supported by the healthcare institution. The support for training will be according to the terms of the healthcare institution.

Place and Train – Enrolled Nurses

The Place and Train programme for Enrolled Nurses (EN PnT) is targeted at augmenting the pool of healthcare manpower in the following ways:

- Assist healthcare institutions to convert and train Singaporeans for healthcare positions.
- Assist Singaporean who are keen to work in the healthcare sector to embark on long-term professional healthcare careers by acquiring relevant healthcare training

The third intake is scheduled for April 2008. Application for this intake will commence in September/October 2007.

The En PnT is an 18-month full-time programme conducted at the School of Applied and Health Sciences at Institute Education (ITE) College East. The course is structured to prepare students to function competently as Enrolled Nurses in various healthcare settings. Graduates will perform direct nursing care and activities to an assigned group of patients under the guidance and direction of a Registered Nurse. The course is designed to develop nurses who are committed to care excellence and to their continuing professional development. Upon completion of training, graduates will be awarded the NITEC in Nursing.

The pre-requisites for the Programme are as follows:

- Singapore Citizens or Permanent Residents.
- Two GCE ‘O’ level (Grades 1-8) in any 2 subjects; or
- Three GCE ‘N’ level passes (Grades 1-5) in English, Mathematics and Science

-
- Minimum of two years of full-time working experience

The EN PnT programme is also open to existing Patient Care Assistants with ITE Skills Certificate in Healthcare qualifications (minimum grade point average of 3.0) who are recommended by their hospitals.

Funding is jointly supported by WDA and sponsoring hospitals of trainees.

Application process

Individuals

Step 1. Individuals interested in applying for EN PnT Programme must submit their application. Applications have been closed for the April 2007 intake and will be open in September/October 2007 for April 2007 intake.

Step 2. Individuals, if selected, will be notified to go for interviews at the healthcare institutions. Only short-listed applicants will be notified.

Step 3. Upon successful interviews and selection by Singapore-based healthcare institution, the healthcare institution will register the individual for NITEC in Nursing. Individuals will sign a training deed with respective sponsoring healthcare institution and will have to bound by the terms and conditions of the support provided by the healthcare institution.

Step 4. Thereafter, the individual will be sent for training supported by the healthcare institution. Training support will be according to the terms of the healthcare institution.

Place and Train – Food and Beverages

The Place and Train programme for the Food and Beverage (F&B) sector aims to skill-up jobseekers with no prior work experience to take up jobs in the F&B industry.

This is a month-long programme comprising both classroom and on-the-job training. Training is conducted by Guilford School of Hospitality.

Upon completion of the above training and assessment, trainees will receive a WSQ Certificate in F&B Service.

Requirements

- Singaporeans/permanent residents
- Must not have undergone the same training for courses supported under the programme
- Must not have participated in other WDA Place and Train programmes in the past 24 months.

TEACH – for Mandarin Preschool Teachers

TEACH is a programme by WDA to support preschool operators in hiring and training as Mandarin preschool teachers.

Appendix B

Chefs Programme (CRAFT)

The CRAFT (CReating talent through Apprenticeship and Full-time Training) for Chefs Programme is designed to nurture chefs who not only possess a strong foundation in skills and knowledge from institutional training, but also practical experience from apprenticeships. Under this programme, the apprentices will have the opportunity to work under the guidance of experienced chefs.

Apprentices will choose from two programmes in western cuisine and baking and pastry offered by established culinary training schools – SHATEC and at-SUNRICE. Upon the completion of training, apprentices will receive the nationally recognized Workforce Skills Qualification (WSQ) Certificate in Food Preparation and WSQ Higher and Advanced Certificates in Culinary Skills. They will also receive a Diploma in Culinary Craft & Service Excellence or a Diploma in Pastry & Baking Arts from at-SUNRICE or a Diploma in Culinary Skills or Diploma in Baking and Pastry from SHATEC.

Appendix C

Professionals Conversion Programme (PCP)

The Professionals Conversion Programme (PCP) aims to enhance job opportunities for Professionals, Managers, Executives and Technicians (PMETs) by helping them upgrade their skills or start new careers in growth sectors. This is timely as more PMET openings in the job market are expected, and it has been projected that some 50% to 60% of the 450,000 jobs that could be created over the next 5 years will be at the PMET level.

The PCP, announced by Minister for Manpower Dr Ng Eng Hen at the Committee of Supply on 7 Mar 2007, is modelled on the successful Strategic Manpower Conversion Programme (SMCP) in Healthcare started in 2003, which has trained more than 400 PMETs for new careers in nursing or radiography.

For a start, the PCP has the following training programmes developed by WDA in collaboration with industry partners and training institutes. They cover ten growth sectors, namely Healthcare, Training, Infocomm Technology, Logistics, Aerospace, Real Estate, Engineering Services, Retail, Food & Beverage, and Meetings, Incentives, Convention & Exhibition (MICE) and Events.

These programmes are as follows:

- Digital Media Traineeship Programme
- Place and Train for Co-curricular Programme Executives (CCPEs)
- Instrumentation and Control Conversion Course
- Licensed Aircraft Engineer (LAE) Apprenticeship Programme
- Property Officers Re-skilling Programme
- CRAFT for Chefs Programme
- WSQ Diploma in Service/Culinary Management

-
- WSQ Advanced Certificate Programme in Meetings, Incentives, Convention & Exhibition (MICE) and Events
 - WSQ Professional Exhibition Management Course
 - WSQ Diploma in Retail Management
 - Diploma in Nursing (Accelerated) – Registered Nurses
 - Pre-School Trainee Principals
 - Retail Professional Traineeship Programme (RPTP)

More programmes will be rolled out and included into the PCP over the next few months in sectors like Community & Social Services, Finance, Human Resource, Creative Industries, Marine, and Workplace Safety & Health.

Appendix D

Local Immersion Programme for the Process Industry

The Singapore Workforce Development Agency (WDA), with the support of the Association of Process Industry (ASPRI), will introduce an Immersion Programme for engineering service providers (ESPs) in the Process Industry in early 2006. This programme aims to help ESPs enhance their manpower and engineering capabilities.

This programme aims to equip local technicians and engineers with the right competencies, skills and capabilities, as well as a better understanding of clients' (i.e. plant owners) needs. These enhanced capabilities will in turn enable ESPs to improve their competitiveness in the industry.

Plant owners from EDB's Process Local Industry Upgrading Programme (LIUP), which includes ExxonMobil, Shell, Seraya Chemicals, Singapore Refining Company (SRC), Singapore Petroleum Company (SPC) and Invista, have agreed to participate in the pilot phase of the Immersion Programme.

The ESPs will attach their workers to a plant owner's premises for a period of immersion of up to 12 months. This hands-on training approach will enable workers to improve existing skills and acquire new skills necessary for the job. Upon completion of the Immersion Programme, the trainee will receive a joint certificate of competency from the client company, ASPRI and WDA. Under this programme, participating ESPs are eligible for absentee payroll funding, at 50 percent of the trainee's salary, capped at \$1,200 a month (whichever is lower), for up to 12 months.

ESPs and trainees must satisfy the following criteria to be eligible for funding under the Immersion Programme:

Companies:

- ESPs registered or incorporated in Singapore
- Training must be fully sponsored by company
- Training must contribute towards the company's business objectives.

Trainees:

- Singaporeans or Singapore permanent residents
- Possess at least a year of relevant working experience.

The pilot phase of the programme is targeted at local Electrical and Instrumentation (E&I) technicians or engineers. Immersion Programmes for other job families in the Process Industry will be available in the future.

Appendix E. Adult learning

Singapore Workforce Skills Qualification (WSQ)

The WDA has developed an integrated continuing education and training system known as the Singapore Workforce Skills Qualification (WSQ) system. It is founded on international best practices, which are recognized, by industries and employers.

WSQ caters to working adults. It complements the pre-employment training delivered by our schools and education institutions like vocational institutes, polytechnics and universities. It focuses on job competencies, i.e. having the ability to do the job well and encompasses employability, occupational and industry skills.

WSQ is a structured programme made up of training modules specific to an industry. You can accumulate the skills that you need at your own pace towards a series of certifications. This ranges from certificate to graduate diploma in sectors such as retail, tourism, food and beverage, precision engineering and more.

WSQ benefits everyone, including individuals without academic qualifications. This is possible because WSQ recognizes past training, work experience and current credentials in addition to academic achievements.

Benefits of WSQ

For jobseekers/employees:

- Enhanced employability through training in skills you lack and upgrading of your current competencies.
- Greater ability to perform your job better.
- Career advancement through clear progression pathways. This helps you to advance in your current field or switch to a different industry of your choice.

For employers:

- Better performance by employees who meet the required standards.
- Higher productivity as better skilled employees help to raise your organization's efficiency and productivity.
- Effective HR recruitment as you can easily identify the required skills, develop accurate job descriptions and recruit people with the right skills.
- Effective HR development as you can easily plan your employees' training and career pathways to meet your organisation's needs.

For training providers:

- Credibility from national endorsement of training curriculum, training materials and trainers.
- Compatibility with international standards and qualifications.
- Continued relevance of training programmes and trainers through regular audits.

-
- Capability upgrading through training programmes for trainers, curriculum developers and programme administrators.
 - Marketability of training programmes and trainers.

Singapore Employability Skills System (ESS)

The Singapore Employability Skills System (ESS) prepares people for careers by offering training in essential skills needed at the workplace. These skills are portable, essential and relevant in any industry and will help workers to remain employable in the ever-changing economy.

The ESS was developed by WDA with inputs from employers and industry associations. This means that the skills identified are critical in improving the efficiency and effectiveness of workers at the workplace.

The 10 basic skills are:

- workplace literacy and numeracy
- information and communication technologies (ict)
- problem solving and decision-making
- initiative and enterprise
- communications and relationship management
- lifelong learning
- global mindset
- self-management
- work-related life skills
- health and workplace safety

The ESS is categorized into 3 broad series – The Workplace Literacy Series; the Workplace Numeracy Series; and the Workplace Skills Series.

1. The Workplace Literacy (WPL) Series involves 3 modules and 8 literacy proficiency levels. These are Beginner (levels 1-4), Intermediate (levels 4-6) and Advanced (levels 6-8). Each training course is 90 hours in duration.
2. The Workplace Numeracy (WPN) Series involves 2 modules and 5 numeracy proficiency levels. These are Intermediate (levels 4-6) and Advanced (levels 7-8). Each training course is 30 hours in duration. Levels 1-3 are incorporated under the WPL (Beginner) training.
3. The Workplace Skills (WPS) Series is designed to meet the skills demand and competencies of three occupational levels – Operations, Supervisory and Managerial. Each training course can range up to 24 hours in duration.

Statement of attainment (SOA)

After successful completion and assessment of each training module, participants will receive a formal recognition through the award of an SOA. The SOA is a nationally-recognized qualification indicating the participant's ability or competence in a particular area. This means that the participant is certified by the WDA as being able to perform a task appropriate to his occupational level and work demands

Career Readiness Certificate (CRC)

Upon obtaining the required SOAs in the WPL and WPN modules, as well as the WPS modules, participants will be awarded with a CRC. The CRC is a national qualification under the Singapore Workforce Skills Qualification (WSQ) system. It recognizes participants' achievements in attaining foundational and generic skills. The CRC also provides flexibility to include a limited number of industry-specific training drawn from other WSQ industry skills courses.

A total of 10 SOAs is required to achieve the CRC. Certification of an individual's Workplace Literacy (Reading and Listening) and Workplace Numeracy competency is compulsory towards achieving the CRC. Another five SOAs can be attained through successful completion of Workplace Skills Series training. To allow for customization to employer's specific training needs, the final two SOAs can be drawn from other WSQ programmes or from additional WPS modules. Steps to attaining a CRC at the 3 occupational levels:

CRC (Operations)

1. Attain level 5 in Workplace Literacy (Reading and Listening)
2. Attain level 5 in Workplace Numeracy
3. Do at least 5 Workplace Skills Modules at the Operationals level
or
4. Do 2 other WSQ modules or Workplace Skills Modules at the Operations level

CRC (supervisory)

1. Attain Level 6 in Workplace Literacy (Reading and Listening)
2. Attain Level 6 in Workplace Numeracy
3. Do at least 5 Workplace Skills Modules at the Supervisory level
or
4. Do 2 other WSQ modules or Workplace Skills Modules at the Supervisory level

CRC (managerial)

1. Attain level 7 in Workplace Literacy (Reading and Listening)
2. Attain level 7 in Workplace Numeracy
3. Do at least 5 Workplace Skills Modules at managerial level
or
4. Do 2 other WSQ modules or Workplace Skills Modules at managerial level

National Skills Recognition System (NSRS)

The National Skills Recognition System (NSRS) is a national framework for establishing work performance standards, identifying job competencies and certifying skills acquisition. It provides for the development of national skills standards that stipulate work performance and the establishment of training and assessment centres to train and assess the competence of the workforce.

Skills standards

Skills standards under NSRS are developed in collaboration with industries for specific units of competence. Depending on the level of complexity, each unit of competence generally requires between 40 and 120 hours of learning. The learning can be in the form of classroom or workshop sessions, independent study via print or electronic medium, or on-the-job training.

Training programmes

Training for staff to achieve the work performance standards stipulated by the NSRS is provided by a network of approved training centres (ATCs) which conduct approved training programmes (ATPs). Located in companies and training institutions, these ATCs operate through a pool of experienced trainers drawn from the industry. Companies wishing to train their staff can send them to any ATC or apply to conduct training for their staff in-house.

List of approved training programmes (ATPs)

1. Call centre
2. Chemical process
3. Commercial and industrial cleaning
4. Domestic household services
5. Floral
6. Hairdressing
7. Healthcare (Patient care services)
8. Logistics
9. Marine
10. Mechatronics
11. Medical devices
12. Nursing home
13. Pest management
14. Public cleansing
15. Real estate sales
16. Reflexology-related services
17. Renovation
18. Security systems
19. Shipping
20. Spa services
21. Waste management

As there are no academic or training entry requirements, staff can access any unit based on their work needs. Also, as the NSRS defines skills levels by range, complexity and responsibility, staff can select units from any level based on the needs of their company.

Assessment of skills

The assessment of skills competence under the NSRS is conducted through a network of approved assessment centres (AACs) and covers both the skills and underpinning knowledge. Located largely in companies and training centres, these

approved AACs operate through a pool of independent assessors drawn from industries.

Companies wishing to assess their staff can send them for assessment to any AAC or apply for their staff to be assessed at their premises. A team of independent supervising assessors monitors the conduct of assessments by AACs.

The assessment fees are set by the AACs. They vary according to the complexity of the skills assessed. Fees generally range from \$50 to \$150.

Award of certificate

NSRS certificates are awarded by Units of Competence at Levels 1, 2 and 3. This provides the flexibility for companies and their staff to select units relevant to them at a particular point in time.

Funding support

Courses accorded the ATP status are eligible to enjoy enhanced Skills Development Fund (SDF) funding of up to 80% of course fee subject to \$7 per trainee-hour. For those who are aged 40 and above and holding GCE 'A' level qualification and below, they can enjoy enhanced funding of up to 90% of course fees, subject to \$11 per trainee-hour. Only approved training programmes conducted by ATCs are eligible for the enhanced SDF support.

Table 1. Economic Development Board

Members	Affiliation
Mr Lim Siong Guan	Chairman, EDB
Mr Ko Kheng Hua	Managing Director, EDB
Mr Jonathan Asherson	Regional Director, South-East Asia Rolls-Royce Singapore
Mr Gautam Banerjee	Executive Chairman, PricewaterhouseCoopers Singapore
Mr Goh Chye Boon	Deputy Secretary (Special Projects), Ministry of Trade & Industry; CEO, Sino-Singapore Tianjin eco-city
Mr George Goh Tiong Yong	Executive Chairman, Meiban Group Ltd.
Dr Patrick A.J Gyselinc	Vice-President, Global Supply Chain (Asia Region), Schering-Plough Ltd.
Mme Halimah Yacob	Deputy Secretary General, NTUC
Ms Deborah Henretta	Group President – Asia, Proctor & Gamble
Professor Lui Pao Chuen	Advisor, National Research Foundation
Mr Ashwin Muthiah	Director, TPL India Singapore (TPLIS) Pte Ltd
Mr Jon Niermann	President, Asia Publishing, Electronic Arts
Mr Shunsuke Ohtsu	Chief Executive – Asia, Hitachi Ltd.; Chairman, Hitachi Asia Ltd.
Mr Erik Peyrer	Vice President, Business Development, Asia & Middle East, Cameron International Corporation
Professor Gregory Paul Whittred	Dean, University of Auckland Business School, New Zealand

Source: <http://www.edb.gov.sg> [9 June 2008]

Table 2. Tripartite Committee on Employability of Older Workers

Members	Affiliation
Mr Gan Kim Yong (Chairman)	Minister of State for Education & Manpower
Mr Stephen Lee	Chairman, Singapore Business Federation; President, Singapore National Employers Federation
Mr John De Payva	President, NTUC
Mr Leo Yip	Permanent Secretary, Ministry of Manpower
Mr Alex Chan	Vice-President, Singapore National Employers Federation
Mr Nithiah Nandan	Vice-President, NTUC
Mrs Ow Foong Pheng	Deputy Secretary, Ministry of Manpower
Mr Jimmy Quah	Managing Director, Delphi Automotive Systems (Singapore)
Mdm Halimah Yacob	Assistant Secretary-General, NTUC
Mdm Goh Soon Poh	Deputy Secretary (Policy), Prime Minister's Office (Public Service Division)
Mr Alexander Melchers	Vice President, Singapore German Chamber of Industry & Commerce
Mr Yeo Guat Kwang	Director, Quality Worklife Department, NTUC
Mr Ong Ye Kung	Chief Executive, WDA
Mr Kiyohiko Niwa	Deputy Managing Director, Sony Electronics (Singapore)
Ms Adeline Sum	Principal Private Secretary to the Secretary-General, NTUC
Mr Ong Yen Her	Divisional Director, Labour Relations & Workplaces, MOM
Mr William Da Silva	Honorary Secretary, Association of Small & Medium Enterprises
Ms Cham Hui Fong	Director, Industrial Relations Department, NTUC
Mr Jeffrey Wong	Divisional Director, MOM Planning & Policy, MOM
Mr Koh Juan Kiat	Executive Director, Singapore National Employers Federation Singapore Business Federation
Ms Teh Zsin Woon	Director, Employment Facilitation Division, WDA

Source: <http://mom.gov.sg> [12 June 2008].

Table 3. Board of Workforce Development Authority

Members	Affiliation
Tan Pheng Hock	ST Engineering LTD
Jennie Chua	Deputy Chairman, WDA; President & CEO, The Ascott Group
Abdul Rahman Bin Mohamed Said	Managing Director, Maxinfo Communications Pte Ltd
Jeffery Wong	Divisional Director, Manpower Planning and Policy, MOM
Bill Chang	Executive Vice President (Corporate Business), Singapore Telecommunications Limited
K. Karthikeyan	NTUC Central Committee Member and General Secretary, United Workers of the Petroleum Industry
Oh Wee Khoon	Managing Director, Sobono Energy Private Limited
Zainudin Nordin	Mayor, Central Singapore District; Chairman, Bishan-Toa Payoh Town Council
Josephine Teo	Executive Secretary Singapore Industrial and Services Employees' Union Director, Youth Development, NTUC
Bruce Poh Geok Huat	Director & Chief Executive Officer, Institute of Technical Education
Tan Kay Yong	Vice-President, India China Supply, GlaxoSmithKline plc
Philip Ong Wee Kiat	Director Policy (Designate), Defence Policy Office & Office Director, Future Systems Directorate, Ministry of Defence, Singapore.
Goh Mui Hong	President & CEO, ST Asset Management Ltd & Group; President, Vertex Venture Holdings Ltd
Cyrille Tan	Vice-President, NTUC; General Secretary, United Workers of the Electronics and Electrical Industries
Ong Ye Kung	Chief Executive, WDA

Source: <http://www.wda.gov.sg> [10 June 2008].