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## 1. EXECUTIVE SUMMARY

In NYP, people development extends beyond just training. In today's climate of intense change and competition, a key competitive advantage is our people. We ensure that development opportunities for our staff extend beyond traditional classroom learning to give each person exposure to a variety of development opportunities from the very onset of joining us. Hence, from new hire orientation to every stage of career development, growing and learning in NYP is continuously reinforced in our people. We structure a unique development and learning approach in a borderless culture that takes staff through a continuous multi-disciplinary learning process, in ways that integrate with the strategic intent of NYP.

### **Innovative People Development Approach**

Our innovative people development approach is the holistic 4Cs Framework encompassing four essentially inter-related elements – Culture, Concept, Capability and Connection. This unique and total approach is the brainchild of our Principal & CEO (PCEO). Each C is an integral component with its own unique quality that plays a part in strengthening the whole framework. The 4Cs are linked as building blocks for innovative practices that harness the qualities and strengths of each of the Cs – enabling us to develop staff to be their best and do their best in adding value to the organisation. It leads to an ever higher quality of learning actions and results. The net impact of this approach is **“No Shelf Life” in a borderless culture at NYP.**

Our strategic people development initiatives align with our NYP mission, to deliver industry-relevant manpower resources and market-oriented services, targeted to meet the needs of the Singapore economy.

### **Deployment Approach**

Our innovative and well-defined 4Cs Framework is fully deployed across all levels, functions, schools, departments, and external service providers. The deployment involves both new and existing staff, teaching and non-teaching staff, managers and directors and the PCEO himself.

Our guiding philosophy in deploying the 4Cs Framework for people development is the 6 *Beyond* Principles – predicated on a borderless mindset and culture, rather than physical boundaries and structure. Briefly the 6 Principles take us beyond the conventional norms - 1) *Beyond Current Job Experience* where staff training and development is not based on current job requirements but needs of future jobs; 2) *Beyond Current Position* where staff are identified for development beyond their present jobs through a policy of promoting talent within the organisation; 3) *Beyond Existing School/Department* where we have a Job Exchange Programme (JEP) for lecturing staff to take on corporate jobs and vice versa; 4) *Beyond Staff's Current Profile* where staff are given opportunities beyond their current profile to train in new technology and business areas for relevance and employability in the face of rapid technological changes; 5) *Beyond NYP* where staff attend courses by training providers, are seconded to external public and private organisations to learn and acquire new

and emerging technologies, and work on industry projects to hone their skills; 6) *Beyond Singapore* where staff are sent for tertiary and technology education in specialised disciplines, and are attached to renowned organisations world-wide, to learn best in-class practices complementing our own in-house R&D capabilities.

The critical success factors in our deployment approach include strong leadership, strategic direction and innovations from PCEO, and unwavering management commitment and involvement; shared responsibility of our Partners-in-Training from the Schools/Corporate Departments, and School Training Co-ordinators; on-line facilitation through e-Staff Learning and Development System (LSD); effective communication platforms; regular training co-ordinators meetings and dialogue; NYP Knowledge Management and Human Capital Management Databases, and Monitoring and Feedback Systems. It is not just mechanisms or hardware but the “*Heartware*” factor that captures the hearts and minds of people, which is key to people innovation deployment in NYP. It is the *heartware* factor that determines how our people at every level embrace capability development on their own accord. It is their willingness to engage in new actions, and to be challenged by new initiatives and strategies, that transport them beyond the ordinary. These are key determinants in NYP contributing to the success of our people development approach.

The strength of our innovative people development approach lies in its holistic approach and large-scale deployment. One particular feature namely, “borderless organisation”, is embedded as one of our organising principles and is a core element in our culture. The net impact of NYP’s approach and deployment is “**No Shelf Life**” in a **borderless culture at NYP**. Teamwork is of the essence. Leveraging on the respective strengths and integrative capabilities of staff and students, NYP is able to produce applications and products that meet the needs of industry. NYP staff learn continuously. They commit themselves to innovate, experiment and stay ahead of change by engaging with industry in R&D and collaboration projects. NYP staff stay **New, Young and Promising**.

## **2. ORGANISATIONAL BACKGROUND**

Nanyang Polytechnic (NYP) was established on 1 April 1992 under the Nanyang Polytechnic Act which laid down the broad purpose as that of providing study, training and research and the advancement of developments in engineering, business, health sciences and information technology. Although established in 1992, the history of NYP goes back to the Economic Development Board (EDB)’s manpower development years in the late ‘70s and early ‘80s – the days of the French-Singapore Institute (FSI), German-Singapore Institute (GSI), Japan-Singapore Institute (JSI) and Precision Engineering Institute (PEI). These Institutes of Technology were transferred from the Economic Development Board (EDB) to Nanyang Polytechnic to become part of our School of Engineering. We have a long standing tradition, of NYP working in partnership with industry, and training for industry. These partnerships have grown stronger over the years, adding value to our teaching and learning.

## Mission and Vision and Core Values

NYP Vision and Mission	Core values
<p>Our vision is to be a premier institute of higher learning with strong industry and international linkages.</p> <p>Our mission is two-fold:</p> <p>a. Primary mission is to provide quality education and training to prepare its graduates for life and for work, equipping them to contribute to the technological, economic and social development of Singapore.</p> <p>b. Secondary mission is to contribute to the national development of Singapore by harnessing resources and expertise to offer training and services to the industry.</p>	<p>Our core values – the fundamental and enduring tenets of our organisation success and culture development – are derived from our belief that people are the vital energising force that makes the difference. Our shared values are thus articulated as follows:</p> <ul style="list-style-type: none"> <li>• Initiative</li> <li>• Teamwork</li> <li>• Creativity</li> <li>• Professionalism</li> <li>• Continuous Improvement</li> </ul> <p>Our vision, mission and core values are strongly influenced by the pioneering and innovative spirit of contributing to Singapore’s manpower development effort as well as the collective response and commitment of staff who have forged a very special bond called the NYP Spirit.</p>

### NYP Spirit

The NYP Spirit reflects our consensus of shared values, and common purpose in the pursuit of excellence. It is manifested distinctively in the high level of synergy and cohesiveness in all that we do. The “can-do” demonstrated by our people at all levels of involvement is testimony to this unity of purpose. Our commitment to excellence and borderless teamwork is a hallmark of the NYP Spirit.

### Product and Services

NYP offers the following products and services:

- Diplomas, advanced diplomas, specialist diplomas, customised courses and programmes for school leavers and working professionals from Singapore and the region.
- Industry projects and services that strengthen our capabilities and provide the application and development oriented learning environment that is vital in polytechnic education.

The diplomas, industry projects, as well as real life learning experiences actively promoting creativity, innovation and technopreneurship, are designed to add value to the students and course participants, meet the needs of industry and contribute to the economic, technological, and social development of Singapore.

## **Main Customers**

Our customers can be broadly segmented as:

- Students currently enrolled in either full time pre-employment training or part time continuous education training
- Industries that employ our graduates, send employees to our training programmes, or provide us with industry projects
- Government agencies and statutory boards like Ministry of Education, Ministry of Foreign Affairs, Ministry of Manpower, Ministry of Health, Economic Development Board, Workforce Development Agency and Infocomm Development Authority.

## **Key Development in the Last Three Years**

### **FY2004/2005**

- NYP hosted Rosetta Net Architecture Centre of Excellence with 10 industry leaders such as Cisco Systems, IBM, HP, Intel, NCS and Microsoft etc
- Setting up the BioInnovation Centre (BIC) which comprises a cluster of well-equipped incubators to attract biotech companies to locate their R&D work in NYP
- Introduced the new Biomedical Engineering elective to support manpower needs in the biomedical manufacturing industry
- Developed new niches in Micro Systems Technology and Nanotechnology.
- Setting up the Games Creation Community at NYP with 12 key partners – game companies
- Provided Mobile Adhoc Networks (MANET) Performance Modelling Solution for DSTA
- Established Wireless Community with 11 partners to catalyse the growth of wireless industry in Singapore

### **FY 2003/2004**

- Set up the NYP-DSO Innovation Centre for Application Specific Integrated Circuit (iCASIC) to develop ASIC capability and intellectual property, particularly in electronics design, wireless communications embedded intelligence and signal processing
- Introduced a new track for Diploma in Molecular Biotechnology to train pharmacy technologists and research co-ordinators for careers in pharmacies and clinical research organisations
- Jointly launched the NYP-NTUC Income Academy as a premier training provider for the financial services and insurance industry offering wide ranging specialist courses to raise the professionalism and technical competence of practitioners here and in the region
- Developed new niches in Micro Systems Technology and Nanotechnology
- Introduced a new module on cutting-edge technologies to the engineering programme and set up new lab to support industry projects

- Established the IC Community with eight key industry partners to nurture IC design industry in Singapore
- Set up the Human Resource Management Comparative & Benchmarking Circle

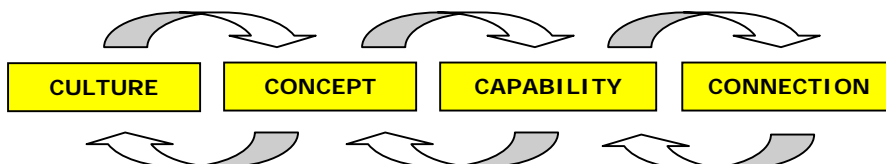
**FY 2002/2003**

- IDA appointed NYP as the Pilot and Trial Hotspot (PATH) Assessment Centre for Interoperable Web Services. NYP and IBM Singapore launched the Web services Innovation Zone (WIZ) to jointly work on open computing platforms.
- The School of Information Technology developed the Lease and Tenancy Billing Project for Jurong Port as part of its overall strategic IT infrastructure to provide quality service to its customers.
- Established the Micro-Electro-Mechanical Systems (MEMS) Lab to support applied R&D projects that focus on design and development of devices with biomedical and photonics applications.
- Introduced a new specialisation track in digital film and video production.
- Set up the Bioinformatics Group (BIG) which specialises in biomedical science projects with medical and genomic research centres, pharmaceutical companies and hospitals.
- Set up the XML Centre of Competency, a business-oriented XML showcase and a platform for training and project work in three key business concerns: enterprise content management, web services development and IT security
- Introduced a new e-Logistics elective to equip graduates with ability to customise and develop IT applications and solutions for the logistics and transportation industry
- Renewed People Development Standard
- Set up the Human Resource Development Comparative and Benchmarking Circle

**3. PEOPLE INNOVATION APPROACH**

Our innovative people development approach is the holistic 4Cs Framework encompassing four essentially inter-related elements – Culture, Concept, Capability and Connection. Each C is an integral component with its own unique quality, that plays a part in strengthening the whole framework. The 4Cs are linked as building blocks for innovative practices that harness the qualities and strengths of each C – enabling us to develop staff to be their best and do their best in adding value to the organisation, leading to an ever higher quality of learning actions and results. The net impact of this approach is “No Shelf Life” in NYP’s borderless culture and environment.

**The 4Cs Framework – Approach To People Excellence**



## **CULTURE**

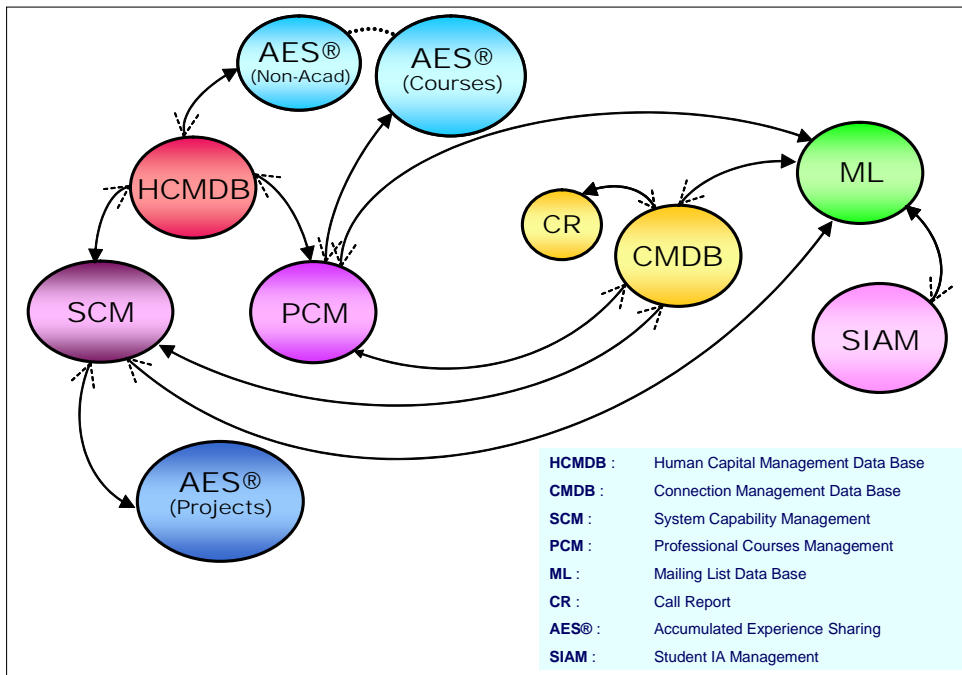
Our culture is what makes the difference in NYP. It has an impact on our people and on the way we do things, and is also readily recognisable by external parties who see for themselves the atmosphere, the environment and the way challenges are accepted and met in NYP.

Our PCEO and Senior Management take personal responsibility to shape the culture for our people, engendering a unique quality of teamwork, a strong people culture and synergistic cohesiveness that enables our people to think and act beyond the convention with bold innovative concepts. The **borderless culture** that is well-rooted in NYP provides abundant opportunities for cross-disciplinary technology innovations and resource integration, which lead essentially to building up staff capabilities. A key example is the “Borderless School Concept” in NYP’s Technology Park, an innovative master plan conceived by PCEO, which facilitates the consolidation and pooling of resources between all schools and disciplines. The Technology Park is where staff converge and interact closely, working together synergistically and collaboratively to meet specific industry and technology needs through joint projects, cross-teaching and learning, and cross-fertilisation of ideas. The “Borderless School Concept” has transformed NYP into a borderless organisation where there are no “walls and boundaries”. This engenders widespread and effortless utilisation of shared resources and development of innovative applications, solutions and products. The seamless integration of schools and corporate departments working together on joint initiatives or multi-disciplinary projects and programmes is deeply ingrained in our people, processes and practices.

NYP has a perpetual **learning culture**, of which our Learning Organisation (LO) and Knowledge Management (KM) initiatives are part. PCEO advocates that “the minute you stop learning is when you start growing old”. Since inception, NYP has been on a continuous learning journey. The aim is to promote life-long learning, be able to transform ourselves in a rapidly changing external environment, and create the capacity for staff and students to excel or scale new heights, whatever the future might bring.

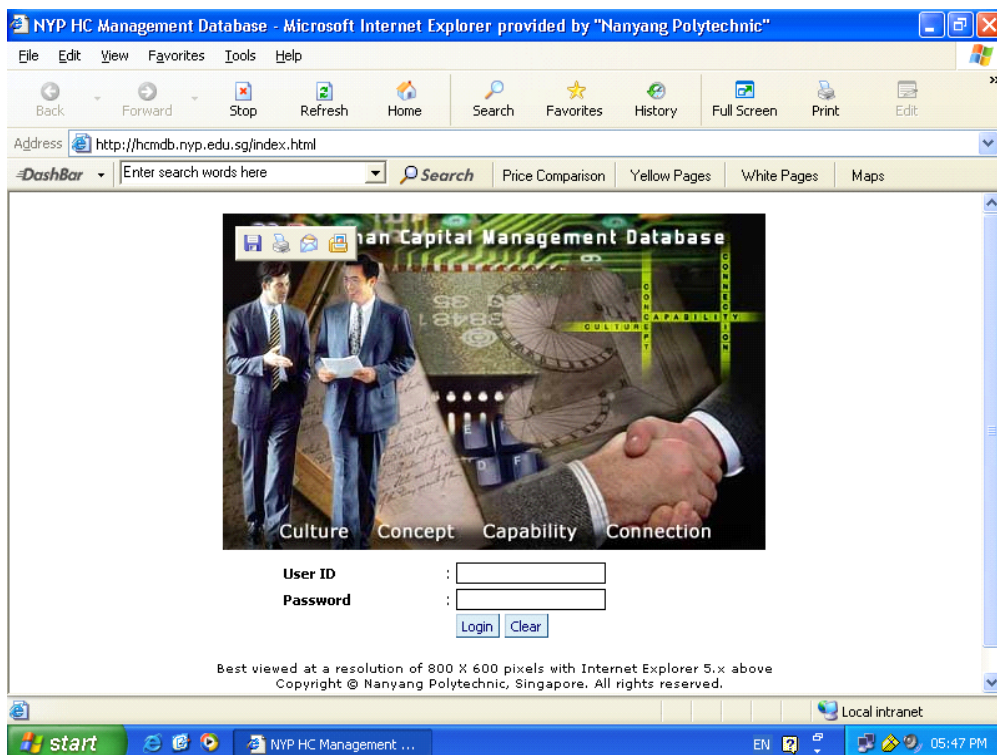
An innovative aspect of the perpetual learning culture is our in-house developed, integrated Knowledge Management (KM) database system. In our organizational learning journey, this KM database system facilitates exchange of explicit and tacit knowledge, allows for ease of internal interaction and circulation, shared collaboration and a broader basis of organisational learning. Institutionalised corporate memory is effectively managed and deployed across the organisation via the different types of electronic repository databases and configurations, as shown below. Of significance in our KM database, in relation to human resource development, is the Accumulated Experience Sharing® (AES®). It is an innovative e-platform for learning through actual case studies and experience sharing. It is NYP’s registered trade mark. Knowledge and experience gained in industry projects and design projects are captured in AES® and are accessible by future project staff. This reduces the need for manpower in multiple briefings for new project teams, and invariably makes learning an enriching experience.

**NYP Knowledge Management Database (NYP KM)**



Another significant component of KM is the Human Capital Management Database (HCMD), which allows us to mine employee’s capabilities, skills and knowledge to better understand their potential plus development needs. The Management uses it to deploy employees within the organisation, at the right time in the right place.

**Human Capital Management Database (HCMD)**



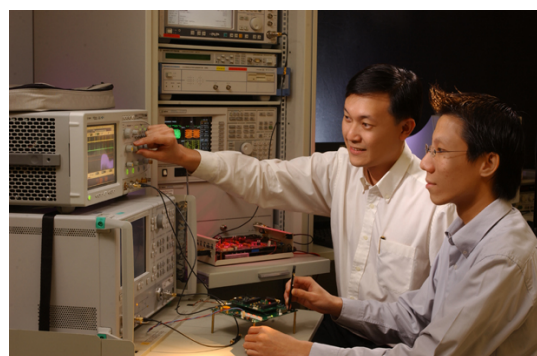


Our strong **people culture**, together with enablers such as the Teaching Factory® and Capability Development concept has laid a solid foundation for Senior Management to pioneer many unique pedagogic innovations that leverage on the strengths of our borderless culture and NYP spirit of teamwork.

### CONCEPT

The concept of the **Teaching Factory® (TF)** is the brainchild of our Principal & CEO (PCEO). TF was introduced to address the hitherto unmet challenge commonly faced by institutions in trying to emulate a real world environment within a typical institutional setting by creating a learning and development environment simulated to actual industry standards. Through this concept, our staff derive greatest benefit by working on complex and challenging real life industry projects. In terms of human capital development, the Teaching Factory® concept injects realism into the training curriculum, instils in staff a business mindset, and prepares them to meet the most current and advanced of technologies, as well as the most recent developments in industry. Our people are challenged to constantly sharpen their abilities, knowledge, expertise and skill-sets to be in sync with industry demands. This ensures our staff stay current and relevant, and are even more effective in training and coaching students, in bringing them up to speed, so that they are well able to respond in a dynamic environment and deliver according to industry needs, even in areas of new and emerging technologies.

The TF concept presents a total systems approach that releases latent synergy by creating an environment for team learning through teamwork, innovation, strong linkages with industry and a strong focus on capability development – all of which are critical success factors enabling NYP to keep abreast of what industry requires.



Students benefit from our fully integrated teaching and learning environment through the Teaching Factory® concept which emulates the industry environment as close to the real world as possible



A joint-project with 3M. This Article Dispensing Machine was designed for use as an Auto-Library. It is a “first-in-the-world” product that provides automatic loan and return services, and the same time, designed to be a central attraction display piece at a modern library. Project involved members from School of Engineering (Manufacturing), School of Engineering (Electronics), School of Information Technology (Infocomm Technology) & School of Design (Industrial Design)

**The 822 Concept**, an innovative capacity creation concept for staff development was implemented to address the challenge of allowing our Lecturers to attend developmental programmes during office hours. Through this 822 concept, we extend all full time diploma classes from 0800 hours to 2200 hours and tap into a wider pool of expertise in the industry. Hence experienced practitioners from industry consisting of specialists and professionals are recruited to teach in the day, thereby augmenting the NYP talent pool by enlarging the complementary pool of guest lecturers. We leverage on e-Learning to add virtual lecturers and tutors for individualised learning without the need for additional staffing and physical space expansion. The end result is a Virtual Expanded School, which frees up time during the day, for the Lecturers to focus on their own development, and undertake research work or developmental opportunities. 20% of our academic staff at any one time, undertakes industry projects and innovation-related work as part of strategic staff capabilities development and learning in specific emerging technological fields.

The concept of **Careers Unlimited** can be implemented because of our borderless culture. *Careers Unlimited* is one where staff identify and grow with the organisation as a whole rather than with just the immediate department. As career development is an integral part of our business growth strategy, we have an organisational structure that facilitates a wide spectrum of career opportunities including challenging job assignments, industry projects, local and overseas industrial attachment, formal academic upgrading, local and overseas training and learning opportunities, vertical, diagonal and lateral job postings, secondment and job enlargement, staff re-profiling programmes, and cross-training and sharing sessions.

## **CAPABILITY**

People development is the underlying theme in all our Concepts. Many of our leading-edge concepts focus on the development of Capability in NYP.

In NYP, Capability means more than just abilities, talents and expertise at the individual level. It encompasses technologies capability, professional capability, together with attitude, commitment, teamwork, etc. NYP considers the development of capability from a systems perspective - when we pool together a group of individuals with complementary talents, we have a formidable team capable of

achieving much more than the sum of the individual capabilities. In turn, a team's capabilities can articulate synergistically with other teams' capabilities, and ultimately we have the organisational or Systems Capability.

### Staff Re-profiling

We recognise that falling behind the technology curve and lagging behind new knowledge frontier are risks faced by staff. It is our job to help them respond to this threat by keeping them academically and technologically agile and relevant to industry. We also face the challenges of recruitment of manpower where there is critical shortage externally. In response to this, an innovative **Staff Re-profiling** programme was conceived by PCEO as a strategic development initiative to:

- a. Prepare staff to take on expanded roles in new portfolios and in new knowledge domain areas to remain relevant and employable in an innovation-led, infocomm-enabled, knowledge economy;
- b. Create a pool of internal capabilities to meet present and future manpower needs of the organisation, particularly in areas where recruiting from external sources is not a viable option due to the critical shortage of similar manpower externally.

Staff undergoing re-profiling are put through a series of developmental activities. It is a process to “convert” the officer who is identified for a planned area of competence, or who is to be deployed to a new area or new role. The impact of our re-profiling initiative has helped to transform the staff profile in many new and enhanced capabilities such as micro electronics, infocomm, engineering informatics, business informatics, multi-media IT, bio-informatics, bio-electronics, bio-medical engineering, MEMS, photonics and nanotechnology.

The New Economy needs graduates with know-how in IT *plus another specialisation such as* business, engineering, health sciences or design. However, offering such hybrid courses poses two challenges, namely lack of professionals who are able to teach these courses, as well as the “silo” organisation structure of the traditional academic institutions, having distinct and separate single discipline Schools/Departments. Hence it is our investment in Capability Development and our staff's ability to accept new challenges in a borderless environment that enables NYP to easily conduct hybrid diploma programmes to meet the manpower demands of the new economy.

### **CONNECTION**

As a result of these strengths, NYP is able to build good **Connections** and establish joint strategic partnerships with many external organisations. In NYP, Connection goes beyond the level of mere networking. It is the bond between individuals, between individuals and the organization, and between NYP and external organizations. It is that level of relationship building that creates windows of opportunity for business and staff development, broadens our capacity and provides additional thrust in our pursuit of excellence. Our connections with reputed companies in relevant industries are also of

immense benefit to staff and students in terms of learning and training opportunities, work placements/attachments and overseas development programmes.

We have fostered strong collaborative ties with well-known industry leaders and they consistently offer to us high-value projects - only because our people have the capabilities and proven track record. Our ability to help nurture technopreneurs and start-up companies by hosting them in NYP and providing a comprehensive eco-system support environment is seen in various “Communities” set up with key industry partners, for example, I-Community, Games Creation Community, Wireless Community.



School of Engineering Wireless  
Technology Centre



Launch of Wireless Community

Apart from building connections with industry, NYP has also been the key training partner for the Ministry of Foreign Affairs (MFA) in international programmes. Again, based on the strength of our staff capabilities, we have been requested by them, time and again, to deliver many outbound and inbound training programmes for countries in the region, Laos, Vietnam, Myanmar, Cambodia. We have also delivered specially customised programmes in vocational reform and training/development for People’s Republic of China government institutions, one example being the special invitation of the World Bank.

#### **4. DEPLOYMENT OF APPROACH**

Our innovative and well-defined 4Cs Framework is fully deployed across all levels, functions, schools, departments, and external service providers. It involves both new and existing staff, teaching and non-teaching staff, managers and directors and the PCEO himself.

A guiding philosophy for deploying our People Development Approach is 6 *Beyond* Principles:

1. *Beyond Current Job Experience*: Training is not based on current job requirements but needs of future jobs.
2. *Beyond Current Position*: Staff are identified for development beyond current position through vertical, diagonal and lateral job postings.
3. *Beyond Existing School/Department*: We have a Job Exchange Programme (JEP) where lecturing staff can take on corporate jobs and vice versa. This has provided staff the opportunity for job enlargement and job enrichment and groomed them to become very versatile in many functional job scopes.

4. *Beyond Staff's Current Profile*: We have started a large-scale Staff Reprofitting Initiative to change the current profile of staff so that they remain relevant and employable in the face of rapid technological changes.
5. *Beyond NYP*: With our strong connections with local industries and partners, we are able to tap into their network to serve as platforms for staff development. Staff are seconded externally to other public or private organisations to be immersed and involved in new developments, emerging technologies or latest know-hows and to broaden their perspective as part of our borderless mindset and culture. They are also placed in industries and businesses and in clinical attachments within hospitals and healthcare institutions to keep abreast of latest industry practices which are useful for developing relevant up-to-date curriculum for students. Staff undertake industry collaborations and client-based projects or consultancies with established organisations to hone their skills, and are involved in research and development projects, even clinical trials, to provide the best solutions for industry partners.
6. *Beyond Singapore*: The connection that NYP has steadily cultivated over time with long term and high value-added transnational partners, with the best in world-class businesses and economies - has brought to NYP a real-life learning environment for staff. External resources such as full-scale technology labs, high-end hardware and software, new design tools or state-of-the-art studios and expertise can be tapped on and harnessed to complement our own in-house capabilities and resources. Staff are also attached to well known organisations like the IBM Toronto Lab for Overseas Residency Programme, John Hopkins Medical Institute and American Radiology Services, USA and Centre of Nanotechnology & Micro Engineering, USA etc as part of Capability Development or sponsored for Formal Masters and PhD degrees in the latest technology/specialist areas.

## **Other Enabling Deployment Mechanisms**

### **a. Unwavering Senior Management Commitment and Involvement**

PCEO is actively involved in people development activities. He is an active catalyst in ensuring the pervasiveness of our culture within NYP. A significant people-building initiative spear-headed by him is the NYP Executive Programme (EP). The fundamental principle behind the NYP Executive Programme is that the best training that our future leaders will get is when present leaders are intimately involved in their career development. This fosters a culture of ownership of coaching, developing and nurturing of staff by senior management in NYP, for optimal alignment of people and resources within the organization. Every manager in the programme engages in collective learning and experience sharing on actual NYP case experiences, and this in turn imbues in staff a deep understanding and appreciation of the NYP Spirit, Culture, Values and Management Philosophy - in short, learning the "NYP Way".

Together with the senior management staff, PCEO ensures that people development efforts are deployed consistently across the organisation.

#### **b. Shared Responsibility and Partnership**

People development in NYP is not the sole responsibility of Human Resource (HR). It is considered a shared responsibility and partnership jointly between Directors of Schools and HR Department. All Directors of Schools are appointed as Person-In-Charge-of-Training and charged with the responsibility to lead, drive and achieve staff training goals and objectives in their respective Schools. HR adopts a consulting role and takes the lead in designing and implementing generic skills training.

#### **c. Facilitation through e-Learning and Staff Development System (LSD)**

We also leverage on technology to facilitate our deployment. We developed in-house a customised web-based LSD system to allow staff to access on-line course prospectus, seek approval for courses, do pre- and post-course evaluation, provide feedback on courses and access their individual training roadmaps and training & development history and records.

#### **d. Effective Communication**

NYP employs numerous effective communication strategies and channels to deploy the people development approach to ensure involvement and participation at all levels. These include the following:

- Monthly Senior Management Meeting
- Work Plan Exercise and Staff Conference
- Skip-Level Dialogues and Meetings
- Half Yearly Training Co-ordinators Meetings

#### **e. Monitoring /Learning Feedback System**

We have instituted a monitoring and learning system to gather feedback from staff as well as from external training providers and benchmarking partners to help us fine-tune our innovative people system, practices, programmes and processes.

#### **f. People Development Programmes for External Service Providers**

Our external service providers and outsourced groups are considered a form of “Human Capital” within NYP. In order for them to reap the maximum benefit of people development, we extend our training programmes to Cleaning Contractors and Security Guards to help align them to our mission and vision. Induction programmes, experiential team-building programmes and customer service workshops have also been conducted for them.

#### **g. Deployment of Development Programmes for Corporate Support Staff**

Staff development is not just for those in the teaching functions. Staff in non-teaching functions (i.e. corporate and admin support departments) are also identified for capability development training in their respective specialised or technical areas. Cross functional teams are formed so that they can contribute to teaching excellence for example, during School Promotions, Open House, Joint

Admission Exercise, Graduation Ceremony, Excel Day, IQC Convention, etc. This is to ensure that each and every staff in the polytechnic contributes to the mission and business goals of the Polytechnic.

To ensure training opportunities are given to all levels of staff including the support staff, PCEO decided in FY2000 to have a dedicated training plan for them. Since then, a Total Company Training Plan has been specially prepared annually for all Support Staff, partly to leverage on external funding resources, but mainly to ensure that the capability development of staff in admin-support functions is effectively integrated into the total training plan.

#### **h. Induction *the NYP Way***

All staff are inducted *the NYP Way* through a series of programmes to deepen their understanding of the four essentially inter-related elements – Culture, Concept, Capability and Connection of the 4Cs Framework.

New Staff Induction Programme - Every new staff who joins NYP will participate in a two-and-a-half days induction. They are introduced to and briefed by PCEO and senior management staff on the organisation's culture, our unique people development concepts, the commitment of our senior management to staff capability development, and strong local and international industry connections.



Out-door experiential induction programme for new staff

Staff UPdating and Experiential Relationship-building (SUPER) Programme - As a follow-up to the new staff induction programme, staff with one to two years of service participate in the Staff Updating and Experiential Relationship-building (SUPER) Programme. This is to provide management with the opportunity to impress upon them the importance of the borderless way of working in NYP, people development concepts, strong capability development, experience-sharing and relationship building, all of which are important aspects of the 4 Cs framework. At the same time, we allow the newer staff to sort out early impressions, perceptions and views they may have formed of NYP and to seek clarifications where necessary. This will help to narrow gaps in understanding between staff and the organisation and widen the organisational capacity to learn together.

NYP Executive Programme - Seasoned staff will undergo our in-house NYP Executive Programme where there is shared learning and nurturing by senior management in NYP for optimal alignment of people and resources within the organization to achieve excellence in people and business



PCEO sharing his insights at NYP Executive Programme



Senior Management at a panel discussion during NYP Executive Programme

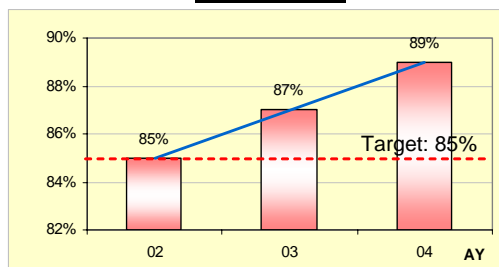
## 5. RESULTS

The impact of our people development strategy and approach is significant in terms of customer, people and financial results. We have been bestowed numerous awards and accolades over the years.

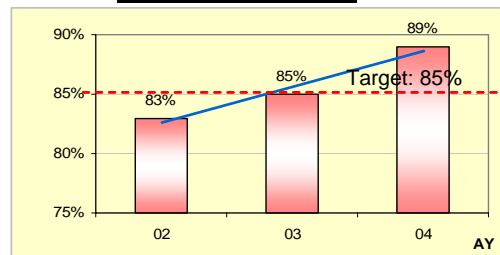
### Customer Results

A relatively large proportion of students in our full-time diploma courses have given favourable ratings to our lecturers and module delivery. Over the last 3 academic years (AY), the ratings for lecturers and module delivery are consistently above our target of 85%.

**Fig 1: % Students who rated Lecturers Good or Better**



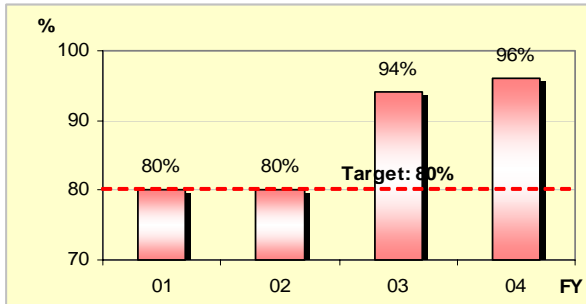
**Fig 2: % Students who rated Overall Module Delivery Good or Better**



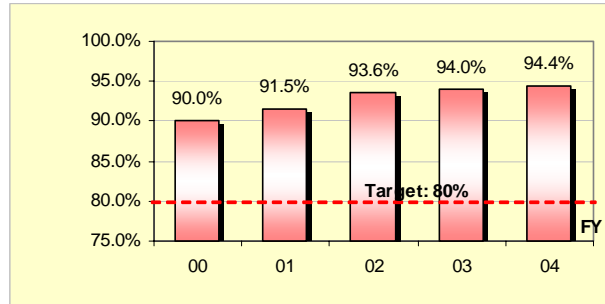
A relatively large proportion of participants/students for our courses in Professional Development (PDC) and International Programmes (IPC) have given us “good” and “better” ratings. In fact the ratings for our PDC courses have seen a marked increase, from 80% in FY 00 to 96% in FY04. Our international participants/students have also rated our courses favourably over the last five FY, consistently exceeding our target of 80%.



**Fig 3: % of PDC Participants who rate Courses Good or Better**



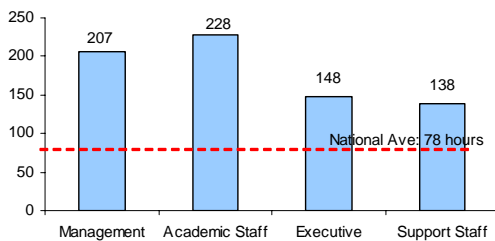
**Fig 4: 5-Years Moving Trend of IPC Participants who rate Courses Good or Better**



**People Results**

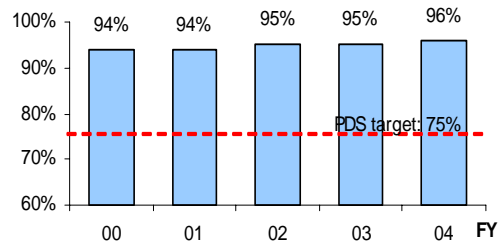
The learning hours achieved by our staff are higher than national average of 78 hours. The learning hours achieved by our Support Staff are also higher than the national average. In addition, our staff commitment is also very strong as evidenced by the consistently high training places utilisation rate, exceeding our target of 90% over the years. This is beyond the People Developer Standard (PDS) criteria of 75%.

**Fig 5 :Average Learning Hours (FY04)**



Note: National Ave of 78 hours is based on Spring Singapore's data

**Fig 6 :Percentage of Training Places Utilised**

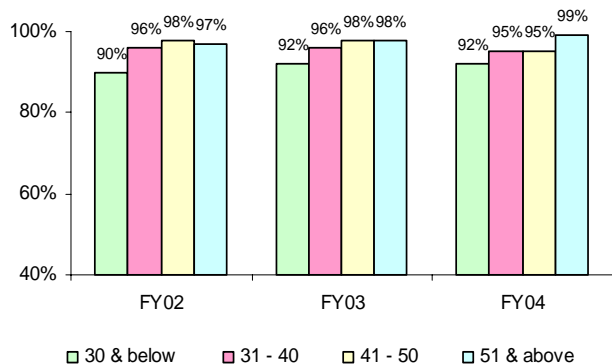


We conducted the Staff Opinion Survey (SOS) in 2003 and 2005. On the whole, staff satisfaction in employee involvement and growth has improved as shown in figure below. All things considered, 99% of our staff want to work for NYP. This is also higher than the industry average of 80%. We achieved a high staff retention rate of 90% across all age groups.

**Fig 7 : Staff Opinion Survey**

Survey Questions	2003 (%)	2005 (%)
I have opportunity for growth and development in my job	90.3	93.0
I am encouraged to come up with new and innovative ways of doing things at my workplace	91.7	94.2
<b>All things considered, NYP is an organisation I want to work for</b>	<b>99</b>	<b>99</b>

**Fig 8: Staff Retention Rate by Age**



## 6. AWARDS & ACCOLADES

The polytechnic is also recognised for its achievements through numerous awards and accolades over the years.

### Awards

#### FY05/06

- Top Awards in Prestigious 38th World Skills Competition 2005 in Helsinki, Finland
- Green Mark Platinum Award 2005
- SHRI Leading Corporate HR Award 2005
- SHRI Leading HR Practices in Health and Employee Wellness 2005
- Singapore H.E.A.L.T.H Award 2005 (Gold)
- People Excellence Award 2005
- Inaugural Minister for Defence Award 2005



#### FY04/05

- Global Technology Award 2004 (Runner-Up) in the software category
- World Skills Competition 2004: 4 Gold, 6 Silver, 6 Bronze
- Tan Kah Kee Young Inventor Award 2004: 2 Merit & 4 Commendation
- Singapore Robotics Game: 6 Gold, 6 Silver, 2 Bronze & 1 Special Awards
- ANIMEX 2004 1<sup>st</sup> Prize Computer Web Competition
- National & ASEAN Energy Efficiency Awards 2004
- Singapore H.E.A.L.T.H Award 2004 (Gold)
- Energy Efficient Building Award 2004
- Crime Prevention Robot Design Competition 2004, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Prize.
- Singapore Cable Car Souvenir Design Competition, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Prize

### FY03/04

- Awards at PS21 ExCEL Convention: 2 Gold, 3 Silver, 1 Bronze
- FIRA 2003 – World Champion Mirosot
- Coca-Cola Design Competition: Judges' Choice Award
- Winner of 4<sup>th</sup> Annual Intelligent 20 Awards 2003, Intelligent Asia 2003
- Singapore Innovation Class (I-Class) Award 2003
- Singapore Young Designer Award 2003
- Tan Kah Kee Young Inventor Award 2003: 1 Silver, 1 Merit & 1 Commendation
- Singapore Robotics Game: 7 Gold, 4 Silver, 4 Bronze & 2 Special Awards
- Mitutoyo Metrology Competition, 2003, 1<sup>st</sup> and 2<sup>nd</sup> Prize in Advanced Category.
- All Japan International Micromouse Competition 2003 - 3<sup>rd</sup> and 5<sup>th</sup> Prize in Expert Class Category
- Designing Singapore: Towards Excellence in Stamp Design Competition, 1<sup>st</sup> Prize.

### FY02/03

- Awards at PS21 ExCEL Convention: 1 Three-Star Award, 3 Gold awards
- Game Developer Village (Commercial Category), Millie 2002, Cannes, France, Developer Award
- World Skills Competition 2002: 3 Gold, 3 Silver, 4 Bronze & 2 Special Awards
- Singapore Young Designer Award: 3 Merit Awards
- Tan Kah Kee Award: 1 Silver, 1 Merit & 1 Commendation
- Singapore Robotics Game: 3 Gold, 3 Silver, 4 Bronze & 2 Special Awards
- LKY Global Business Plan Competition 2002, Semi-finalist
- Asia Star Packaging Design Award, 1<sup>st</sup> Asia Star Award



## Accolades

“I went to Nanyang Poly. I was very impressed. It responds to industry needs and provides practical and useful training to the students. So as a result, the graduates are in great demand, very well paid and skilled.

I saw two things. One was the engineering side. They make robots. No just robots which can wave their hands around but robots for a particular operational use, commissioned by the industry.

In digital animation, they create their own cartoon. If you see Gan Cheong King on TV mobile, that's done by Nanyang Poly. Very good.”

*- Excerpts from Prime Minister Lee Hsien Loong's National Day Rally 2005 Speech, Sunday 23 August 2005, at the University Cultural Centre, NUS*

I suggested to Steve Ballmer that the current system of running hospitals in US or anywhere else in the world is not sustainable. But if we can transform the current system, we would have made a major contribution to the world.

He was excited by the prospect and the opportunity. We decided to use Alexandra Hospital (AH) as the test site for such a major experiment or what the Americans call “skunk works”. **We are involving other partners, including Nanyang Polytechnic. Principal Lin Cheng Ton offered to help. His academic staff and students came forward and worked closely with AH, Microsoft, IDA and others. They wrote most of the computer software on trial at the Emergency Department that allowed the staff to change and modify their processes quickly.**

**This has been a most productive engagement. The students get to work on cutting-edge projects in a real environment, while hospital patients benefit from faster improvement. Microsoft has a work discipline which demands progress every 90 days. Our NYP students do not disappoint. Many worked past midnight and through Chinese New Year to deliver within 90 days. I have no doubt the outstanding ones will find jobs with Microsoft in due course.**

*- Excerpt from speech by Mr Khaw Boon Wan, Minister for Health in Parliament: 8 March 2005*

Our people have those creative skills and our polytechnics and our ITEs, it's not just the universities. **Nanyang Polytechnic is producing good people who will be in demand for creative industries and we're talking about hundreds initially, later on maybe thousands, but it will make a contribution with good jobs for Singaporeans.**

*- Prime Minister Lee Hsien Loong's National Day Rally 2004 Speech, Sunday 22 August 2004, at the University Cultural Centre, NUS*

“We are all very impressed with your efforts to develop a **learning and sharing culture in Nanyang Polytechnic.....**KM (Knowledge Management) needs to be driven and supported from the top management and it would require tireless effort and planning in the initial years to build KM culture and systems.... Staff are motivated to contribute knowledge to the repository partly because of culture and the recognition in the appraisal... Very enriching session. Thanks to NYP for the enriching session and their enthusiasm in sharing their KM journey.”

*- Comments from Lim Soo Ping, Deputy Secretary (Policy), and senior officers of the Public Service Division, following their visit to NYP to learn the Knowledge Management in June 2003.*

Minister Mentor Mr Lee Kuan Yew and Mrs Lee Kuan Yew wishes to express their gratitude to the dedicated team of physiotherapists, occupational therapists, and speech therapists whose enthusiasm, cheerfulness and skills helped her to walk, eat, bathe, swim and do most of her daily chores by herself within two months of her stroke.

*- Press Secretary to SM LKY in a Press Release 2003.*

*(Four of the six occupational therapists and physiotherapists rendering care to Mrs LKY were graduates of School of Health Sciences, Nanyang Polytechnic and they were commended for their professionalism and capabilities.)*

“Sir, continuing education and training is a new name in this new economy. In the old economy, we call this lifelong learning. Thus, continuing education and learning is not a new concept, but the Government's determination is new and it is news.

The labour movement has been talking about this concept of continuing education and training for many years, and lately, lifelong learning has become a festival - Lifelong Learning Festival. In fact, in many of the stories we read during our childhood days, our ancestors were talking about how to keep ourselves relevant to the time and to the organisation, and have an advantage over our competitors or rivals through lifelong learning.

At this point of time, most Singaporeans, except the bo chap group, know the importance of CET and many retrenched workers, including the PMEs, regret very much that they do not have the relevant skills to take on the new jobs available. Other workers, who fear to be retrenched, hope that they can re-skill themselves as soon as possible. Thus, the announcement of the CET statutory board. (Continuing Education and Training)

The CET statutory board shall learn from our **Nanyang Polytechnic** which caters to the needs of the new investments coming to Singapore by working closely with the industries. In the case of CET, it should work closely with not only the industries which are coming but also industries going out from Singapore so that we can prepare our workers well in advance.”

*- Mr Seng Han Thong, MP for Ang Mo Kio  
Parliamentary Debate on BUDGET, MINISTRY OF  
MANPOWER, 2003*