

**SOFTWARE DEVELOPMENT INSTITUTE
(SDI)**

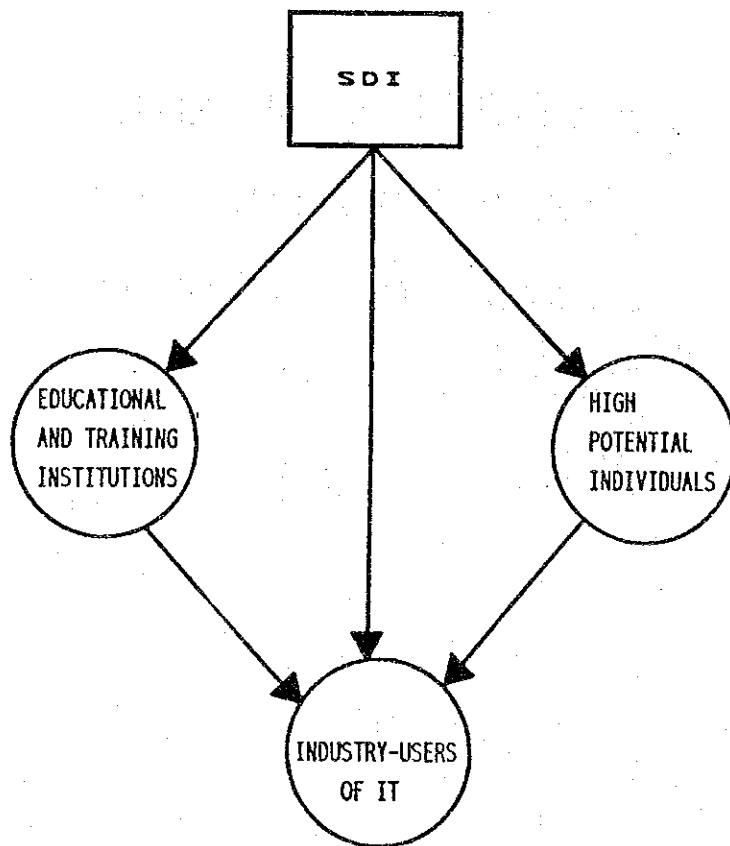
SDI OBJECTIVE

TO CREATE A CRITICAL MASS OF
QUALITY IT PROFESSIONALS IN
SUPPORT OF INDUSTRIES IN
PARTICULAR AND THE GOALS OF
NITP2000 IN GENERAL

FUNCTIONAL ORGANIZATION COMPONENTS

- EDUCATION AND TRAINING
- RESOURCES MANAGEMENT
- FACULTY AND CONSULTANTS
- LIBRARY SYSTEM
- BUSINESS GROUP

CLIENTELE



PROGRAMS

- TRAINING OF TRAINORS
- CURRICULUM DEVELOPMENT
- MATERIALS DEVELOPMENT
- FACULTY DEVELOPMENT
- LIBRARY AND INFORMATION SERVICES
- RESOURCES SHARING

SOURCES OF FUNDS

- GOVERNMENT SUBSIDY
- GRANTS AND AIDS
- SPONSORS CONTRIBUTIONS
- CLIENT/TRAINING FEES
- RESOURCES SHARING CHARGES

STRATEGIES

- ECHO TRAINING
- RESOURCES NETWORKING
- FRANCHISING TRAINING PROGRAMS
- TECHNOLOGY TRANSFER

CURRICULUM STRATEGY

- BUY READY-MADE COURSEWARES RATHER THAN DEVELOP THEM
- PURSUE ADVANCED/SPECIALIZED COURSES WHICH ARE NOT IN DIRECT COMPETITION WITH EXISTING EDUCATIONAL AND TRAINING INSTITUTES

FACULTY STRATEGY

- MAXIMIZE EXTERNAL SOURCING
- MAINTAIN EXTENSIVE NETWORK OF EXPERT-INSTRUCTORS

"Maximum use of information --- the great strategic resource of the twenty-first century --- to enable us to respond actively to threats --- and opportunities --- in the world marketplace

.... I expect this group assembled here today, from many sectors and many talents, to draw up --- before the day is over --- a draft consensus of a National Agenda for Industry and Technology. "

- PRESIDENT FIDEL V. RAMOS
"PHILIPPINES 2000: Our
Development Strategy"

Delivered before the First Multisectoral Forum on Science and Technology, Manila Midtown Hotel, 21 January 1993

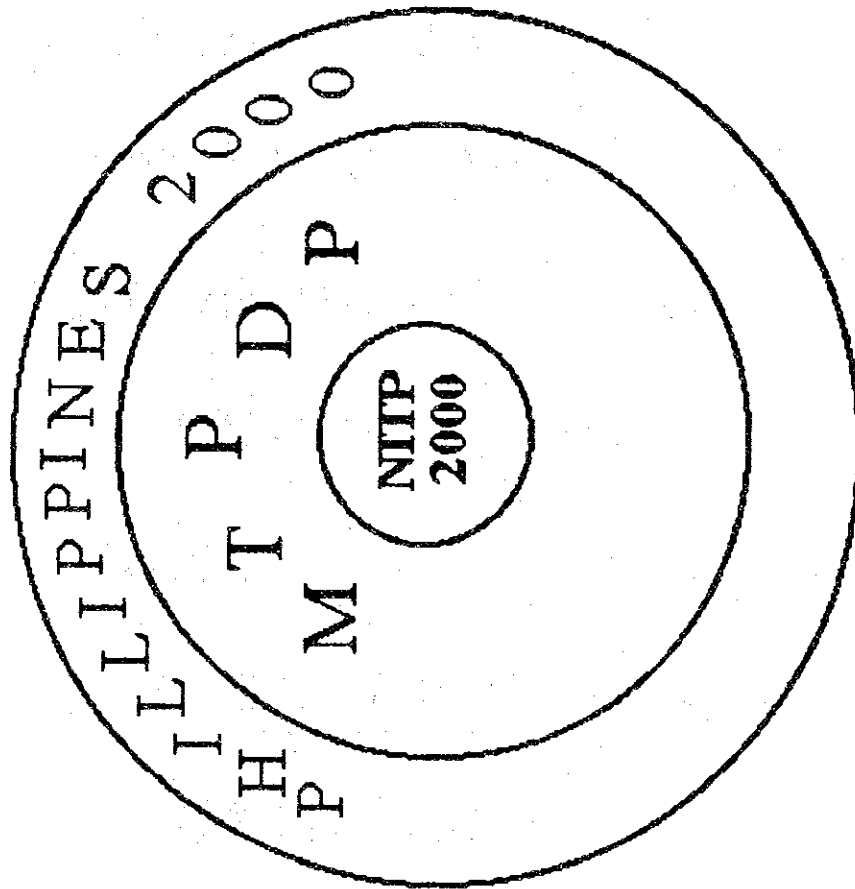
"Further, for our country to attain NIC status as well as to ensure our global competitiveness, the development of Information Technology (IT) is very critical. I would like you to ensure that appropriate emphasis and support policies on IT development are integrated in the Medium-Term Philippine Development Plan."

President Fidel V. Ramos
(Memorandum to
Sec. Cielito F. Habito, NEDA
on 18 February 1994)

NITP2000



The National Information Technology Policy
Within the Context of the Philippines 2000



NITP2000

is not focused on the development of the IT industry alone but on the broader perspective of national development as embodied in the Philippines 2000.

The Proposals -----

☑ SPRINT, 1985

☑ NITP, 1989

☑ NITP2000, 1993

Getting the inputs -----

GOVERNMENT IT FORUM - JUNE 17, 1993

PRIVATE SECTOR IT FORUM - JUNE 28, 1993

**NATIONAL TECHNOLOGY POLICY AND
DEVELOPMENT OF INFORMATION
INDUSTRIES** - Kraemer and Dedrick, Center for
Research on Information
Technology and Organizations
(CRITO), University of
California, Irvine

A Study of -----

JAPAN
AUSTRALIA
NEW ZEALAND
SOUTH KOREA
TAIWAN
HONGKONG
SINGAPORE
INDIA
MALAYSIA
PHILIPPINES

The Reactors -----

Government

NEDA

DTI

DOST

DOTC

NSC

Private Sector

ITFP

ITAP

COMDDAP

**the VISION: towards a
SMART PHILIPPINES**

the information and computing
empowerment of society
where computers are found
in business houses, government
and non-government agencies,
and in homes.

the GOAL: IT DIFFUSION

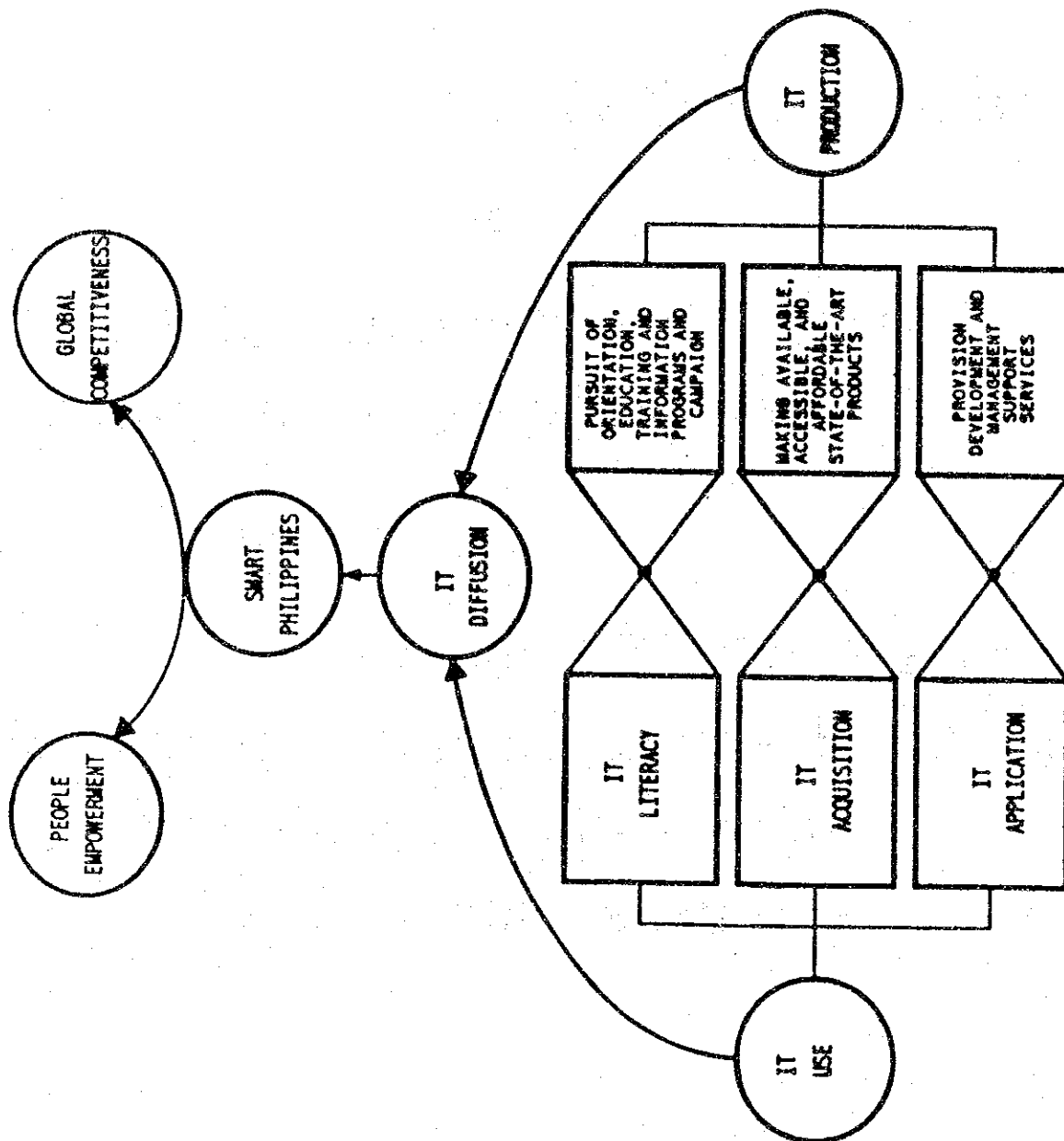
the nationwide propagation
of computing

the STRATEGY:

IT USE - the acceleration of the
widespread use of computing

IT PRODUCTION - the
development and provision of
state-of-the-art computing
products and services

NITP2000 STRATEGIC FRAMEWORK



STRUCTURAL COMPONENTS

(Key Result Areas)

Telecommunication

Industry

Government

Education

Research

TARGETS

in the TELECOMMUNICATION Component

- National Datacommunication Backbone in place by 1998
- Presence of Value-Added Network (VAN) / Value-Added Services (VAS) by 1998

TARGETS

in the INDUSTRY Component

- **1 out of 50 Business Houses on Computers by 1998 from 1 out of 100 today**
- **IT Export of \$300M by 1998 from \$60M today**

TARGETS

in the GOVERNMENT Components

- All Major National Government Agencies on Computers by 1998
- 50% of Local Government Units on Computers by 1998 from 5% today
- Increased Government IT spending from today's 0.5% to 3% of budget by 1998
- 60% of Government Applications Development will be outsourced to Private Sector by 1998

TARGET

in the RESEARCH Component

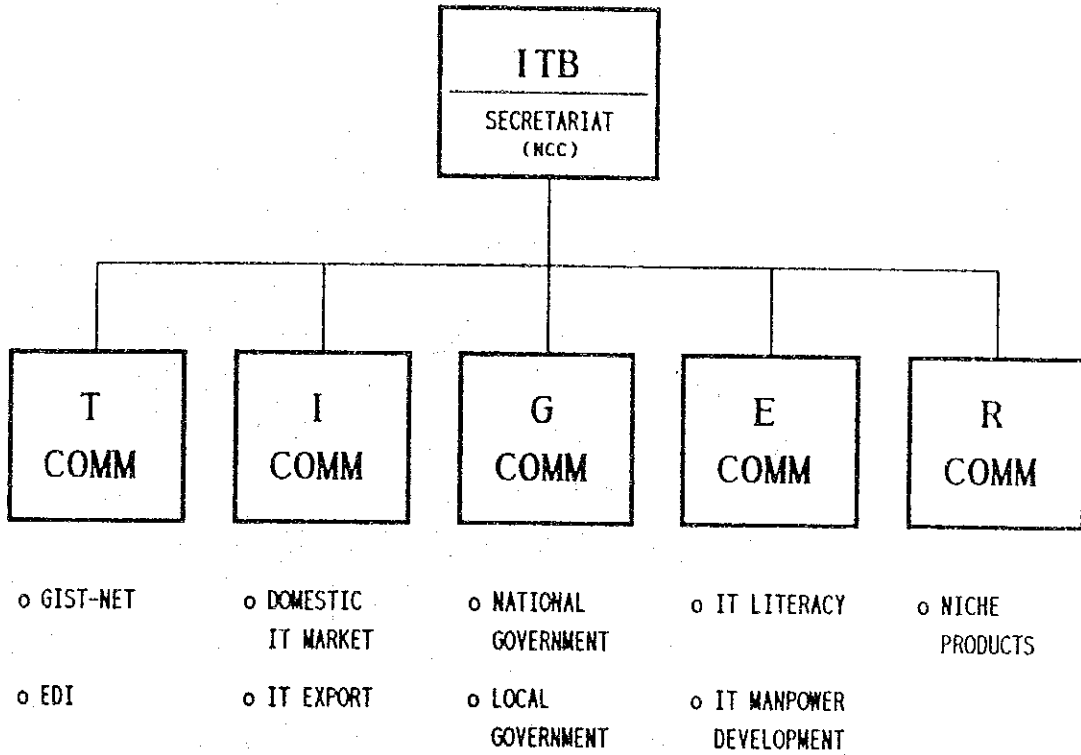
- 10 Niche Products by 1998

DEVELOPMENT PROGRAMS

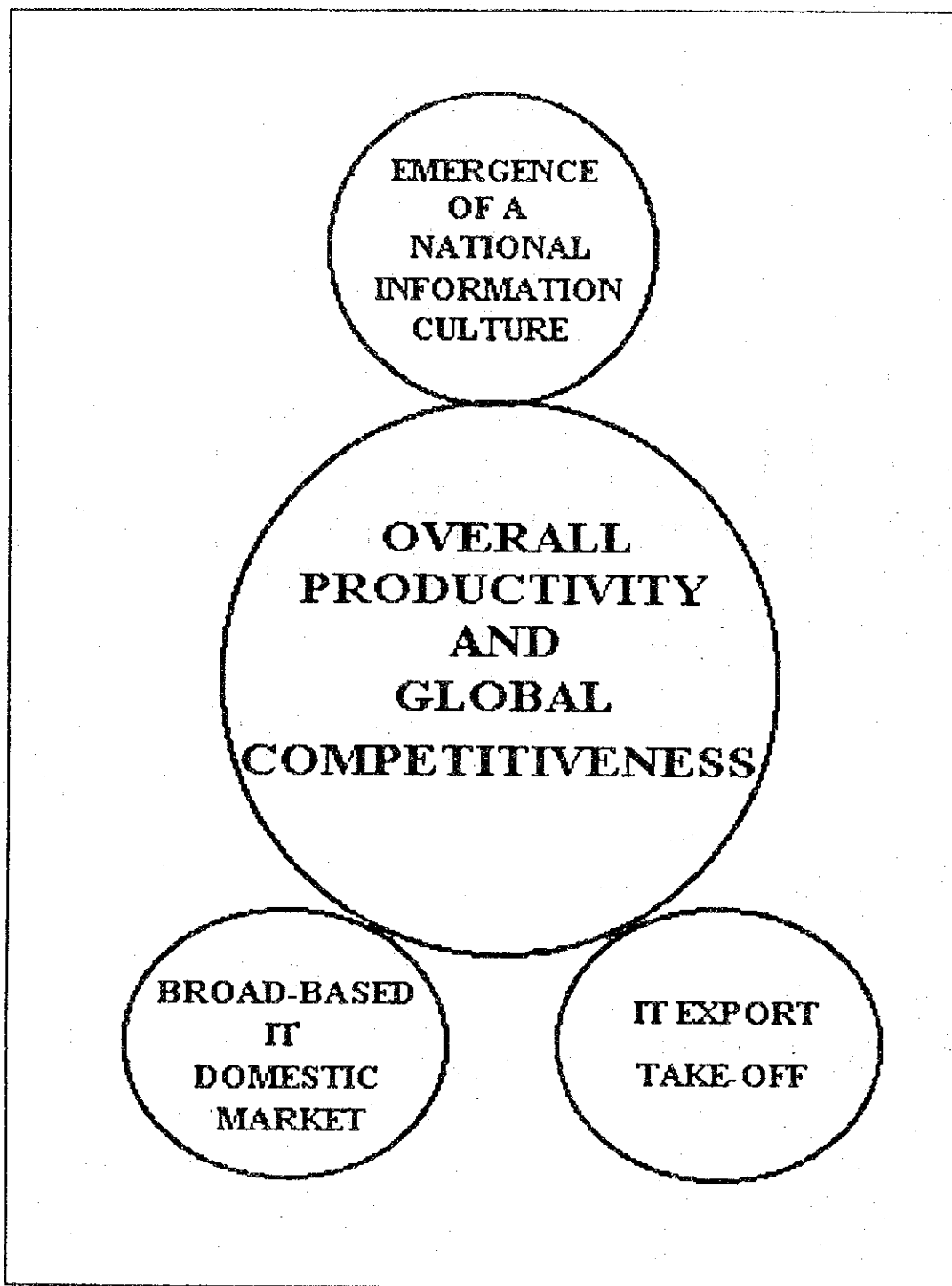
through government - private sector alliance

- ***POLICY DEVELOPMENT PROGRAM***
- ***GOVERNMENT ISP PROGRAM***
- ***PROGRAM FOR INCREASED GOVERNMENT IT ACTIVITIES AND INVESTMENTS***
- ***PROGRAM FOR MASSIVE IT LITERACY AND MANPOWER DEVELOPMENT***
- ***LOCAL GOVERNMENT COMPUTERIZATION PROGRAM***
- ***INFORMATION SHARING NETWORK PROGRAM***
- ***EDI DEVELOPMENT PROGRAM***
- ***IT EXPORT DEVELOPMENT PROGRAM***
- ***PRIVATE SECTOR INVESTMENT PROMOTION PROGRAM***
- ***PROGRAM FOR DEVELOPING IT NICHE PRODUCTS***
- ***STANDARDS DEVELOPMENT PROGRAM***
- ***IT STATISTICS AND REGISTRY DATABANKING PROGRAM***
- ***NCC INSTITUTIONAL DEVELOPMENT PROGRAM***

NITP2000 MANAGEMENT



DEVELOPMENT IMPACT



EXECUTIVE SUMMARY

This National Information Technology Plan 2000 (NITP 2000) documents an overall strategy to spur the country to global competitiveness through Information Technology (IT) diffusion. With the vision of a *SMART PHILIPPINES*, the NITP 2000 is designed to contribute to people empowerment, and social and economic development. The NITP or the Plan is anchored on the belief that the country can benefit from a shared national vision of harnessing IT in the same way that businesses and nations worldwide have and launched them to Newly Industrializing Country (NIC) hood.

The NITP 2000 presents a strategy by which government and the private sector will work together to optimize the use of IT. Substantial portions of the material is derived from SPRINT 85, NITP 1989 and the Center for Research in Information Technology Organizations (CRITO) Study of National IT Policies of Asia-Pacific Countries. It is the product of extensive consultations with the private sector, notably the key players in the IT industry, academe and government and is intended to be the Sectoral Plan for Information Technology. Annex A presents the NITP 2000 Framework.

OVERALL STRATEGIES AND OBJECTIVES

The NITP 2000 is a framework and a comprehensive plan of action with the following overall strategies:

- *IT USE*: Empower the people through widespread and intensive use of IT in all sectors of society to enable coordinated IT use.
- *IT PRODUCTION*: Promote accessibility of IT products and services.

The first strategy aims to promote, harness and sustain the effective use of appropriate information technologies to spur productivity in high-growth industry sectors and improve public service delivery in government. The second strategy addresses the need to create the appropriate environment conducive to IT product innovations. Through a viable combination of Filipino ingenuity and entrepreneurial spirit, the Philippines can be poised to earn a niche in the world market.

The Plan's success is hinged not just on the availability of the required technologies, but primarily on the acceptability and affordability of the technology to the people.

Major Programs of the IT USE Strategy:

1. Formulation and implementation of a Government Information Management Plan;

2. Promotion of innovative and responsive use of IT in government public service delivery by addressing productivity, development management and revenue generation concerns;
3. Acceleration of the use of IT to spur productivity in high-growth industry sectors;
4. Conduct of expansive marketing of IT products and services;
5. Intensification of the use of computers on home affairs;
6. Promotion of sustainable IT in the country; and
7. Promotion of IT development in Local Area Development and Local Government Units (LGUs).

Major Programs of the IT PRODUCTION Strategy:

1. Development of a national IT culture;
2. Formulation of development-oriented IT policies and standards;
3. Formulation and implementation of IT Manpower Development Program;
4. Provision of IT infrastructure for training, research and software development;
5. Establishment of a national information management/data communication network;
6. Provision of affordable telecommunication services to the public (VAS/VAN); (Value-added Services (VAS) Value Added Network (VAN)
7. Provision of direction to IT R&D to address national priorities;
8. Development and promotion of world-class IT export winners;
9. Attracting foreign investments in identified high growth areas;
11. Putting up IT business in government priority areas;
12. Inculcation of business ethics/civic consciousness in IT associations by providing a mechanism for cooperating in the implementation of government programs i.e., anti-smuggling, anti-intellectual piracy, payment of correct amount of taxes;
13. Establishment of IT professional standards; and
14. Making NCC as a world-class IT institution.

Development Approaches

- Update existing and develop new IT-related national policies;
- Establish/upgrade IT infrastructure;
- Step up IT use; and
- Enhance government support to the IT industry

NITP 2000 COMPONENTS

- T* - Telecommunications;
- I* - Industry;
- G* - Government;
- E* - Education and training; and
- R* - Research and development

TELECOMMUNICATIONS IT COMPONENT

Targets

- Presence of a national telecommunications and data communications backbone by 1998
- Presence of Value-added network (VAN)/Value-added services (VAS) by 1998

Scope

Telecommunications infrastructure for IT concerns itself with Value Added Services/Network (VAS/VAN) providers. Specifically, this includes information sharing like the Government Information Sharing Technology Network (GIST-NET); electronic transaction like the Electronic Data Interchange (EDI) and electronic correspondence like Electronic-Mail (E-Mail).

Objective

Accelerate the provision of a national information highway.

Strategy

A proposed key strategy is the improvement of government and private sector coordination on information sharing development, EDI and E-mail.

Action Programs

- **R&D:** Immediately undertake a pilot project for a Philippine Research and Development Communications Network using existing telecommunication facilities;
- **Utilization of Facilities:** Encourage the more widespread use of existing communication facilities (notably the packet switched data networks) to accelerate their expansion;

- **Establishment of Public Databases:** Establish public data bases in consideration of a technical and economic feasibility study that will be conducted;
- **Review the Data Communication Plan in the ISP:** The data communication plan of the agency shall be taken in the context of the ISP. The agency shall be advised to coordinate with appropriate offices of the DOTC as to the telecommunications/infrastructure requirements.
- **Public Fora:** Offer public fora and seminars on available data communication services.

Major Development Programs

- Telecommunications Network Development
- Electronic Transaction i.e., Electronic Data Interchange (EDI) Development Programs
- Government Information Sharing Technology Network (GIST-NET)

INDUSTRY IT COMPONENT

Targets

- One out of 50 SEC-registered business houses will be using computers by 1998.
- Increased IT export from today's US\$60M to US\$300M by 1998.

Scope

- Manufacture/assembly of computer and telecommunications hardware and related devices;
- Software development and consulting services;
- Data preparation services; and
- Hardware and software distribution.

Objectives

- Provide quality niche IT products and services;
- Develop IT as a major export industry by:
 - improving the access of local IT products to foreign markets;
 - enhance the capability of local IT enterprises to produce world-class products;

- protect the rights and promote the legitimate proprietary and intellectual rights of Filipino IT entrepreneurs.
- Promote the appropriate use of IT to ensure that its use contributes to both national economic and social objectives.

Strategies

- Manufacture IT niche products;
- Deal with foreign markets;
- Provide world-class software products and services;
- Upgrade IT skills;
- Set up of networking arrangements among existing IT producers;
- Establish IT Center to house IT product manufacturers who will be given special support facilities and incentives for locating in the Center; and
- Adopt and promote supportive policies specifically geared at:
 - attracting foreign investments in IT;
 - providing financial support/fiscal incentives to existing and potential local IT producers; and
 - increasing private sector participation in government IS development.

Action Programs

- Set up research and information centers that will serve as venues for testing product prototypes and provide local producers with information regarding raw material sources, available production technologies, quality control methods, and marketing strategies;
- Adopt and implement international standards in IT products testing to ensure the production of world-class IT goods and prevent unscrupulous producers from feeding the market with sub-standard products;
- Identify and develop market niches in both hardware and software manufacturing; and
- Reduce smuggling of IT goods into the country through the twin moves of rationalizing tariff rates and imposition of stiffer penalties.

Major Development Programs

- IT Industry Statistics and Registry (IT-STAR) Data Bank Program
- Accelerated IT Use in the Private Sector
- IT Export Development

GOVERNMENT IT COMPONENT

Targets

- Widespread use of IT in mission-critical applications in all major national government agencies towards better provision of government services by 1998.
- Increase in the percentage of LGUs using computers from 1% to 50%.
- Increase government IT spending from today's 0.5% of the national budget to 3% by 1998.
- 60% of the government applications development will be outsourced to the private sector by 1998.

Scope

The government sector consists of departments, attached line/staff bureaus, major government agencies, constitutional commissions, government-owned and controlled corporations, LGUs, the legislative and judicial branches of government.

Objectives

- Improve the delivery of government services to the people;
- Promote transparency in government transactions; and
- Increase the government's capability for:
 - coordinating development planning and policy formulation; and
 - better implementation of government programs and projects.

Strategies

- Formulation of an integrated plan for government information systems;
- Formulation and implementation of an IT Manpower Development Program;
- Setting up of new government IT organizational structures (and strengthening existing ones);
- Liberalization of IT acquisition in government and at the same time promoting compatibility and standardization among IT resources of various government entities; and
- Establishment of a Government Information Sharing Technology Network (GIST-NET) to support electronic transactions between the government and the private sectors; and
- Opening up market for system consulting projects to the private sector.

Action Programs

Immediate (1994)

- Issuance of revised policies and methodologies in IT hardware and software acquisition and use;
- Conduct of a massive information campaign on IT; and
- Completion of a national telecommunications infrastructure plan responsive to the requirements of users for data communications facilities.

Medium and Long-term

- Installation of common application systems in all departments and major offices;
- Implementation of the priority components of the local government computerization program;
- Institutionalization of IT as an area of concern in all government departments, major offices, as well as local government units; and
- Continuing implementation and update of the IT manpower development program for the government.

The strengthening/expansion of the National Computer Center (NCC) and the "networking" of government IT-related organizations is necessary to support the above programs and projects.

Major Development Program

- **Government Information Management Plan (GIMP)** which consists of two components:
 - a. **National Government Information Technology (NGIT) Program**
 - b. **Local Government Information Technology (LGIT) Program**

EDUCATION AND TRAINING IT COMPONENT

Targets

- Engineer the development of a critical mass (from 30,000 to 50,000 in 1998) of highly qualified and competent IT professionals for the domestic market.
- 50% (from the current 10%) of all colleges and universities shall be offering degree programs in IT; and IT subjects shall have been incorporated in the non-IT programs by 1997
- By 1998, 60% of the population will be IT literate.

Scope

The educational system consists of government and private tertiary, vocational and technical, secondary and primary schools.

Objectives

- Educate government and the private sector leaders on the appropriate uses of IT in enterprises and nation-building;
- Produce IT workers of adequate quality and number;
- Build self-reliant capacity in institutions for IT education, training, and research and development;
- Promote the Philippines as an alternative center for IT education; and
- Expand public IT awareness programs.

Strategies

- Provide incentives to encourage offering of IT programs;
- Set up mechanisms for coordination and technological cooperation among local and foreign educational institutions, foundations and professional organizations;
- Adopt and strictly implement policies and standards on IT education and training;
- Provide educational support to identified IT industry niches; and
- Encourage R&D work in IT education and training institutions.

Action Programs

- Survey of IT Education and Training Programs;
- Establish mechanism to facilitate the acquisition of computer hardware and software and other learning resources by various educational and training institutions;
- Promote transfer and dissemination of advanced IT;
- Improve the recognition and accreditation system for IT training;
- Conduct IT training programs for IT Professionals, IT technicians, managers and users, and executives;
- Develop a scheme to promote computer technology awareness through the mass media; and
- Incorporate appropriate computer technology topics into selected tertiary level disciplines.

Major Development Programs

- Software Development Institute (SDI)
- IT Literacy and Information Dissemination (ITLID) Program

RESEARCH AND DEVELOPMENT IT COMPONENT

Target

- Ten (10) IT niche products shall be developed by 1998.

Scope

R&D encompasses all government and private R&D entities including educational institutions dedicated to IT R&D activities.

Objectives

- Identify IT R&D niches;
- Provide R&D support to IT industry to develop or upgrade relevant IT goods and services that will increase productivity of agricultural, industrial, and government sectors; and
- Develop/upgrade local manpower capabilities and institutional resources in IT R & D.

Strategies

- Increase support for IT R&D manpower development and institutional facilities; and
- Encourage/strengthen private sector participation in government IT R&D activities.

Action Programs

- Conduct of policy studies and program planning for IT R&D;
- Development of advanced IT manpower resources (professionals and technicians);
- Establishment of a communications/IT network; and
- Enhancement of R&D in software development; design and implementation of a national database; development of Computer Aided Instruction (CAI) tools for the national educational system; and conduct of a study on the immediate establishment of a two-way telecommunications network connecting all towns and cities in the Philippines.

Major Development Program

- Stronger Industry-Academe Coordination in Developing R&D Programs (SIACRD)

NITP 2000 IMPLEMENTATION

There is no need to create new bodies or agencies to undertake the various programs of the NITP 2000. Existing institutions, resources and facilities will be used. It highlights the need to coordinate various entities involved and to forge strategic alliances between government and the private sector.

The NITP 2000 recommends the reconstitution of the Information Technology Coordinating Council (ITCC)-- the body created by EO 356 in 1989 to oversee the implementation and updating of the NITP 2000 into an Information Technology Board (ITB). It shall be headed by the Executive Secretary as the Chairman and the NCC Managing Director as the Vice Chairman in ex-officio capacity with the following departments represented by their duly designated Undersecretaries also in ex-officio capacity, as members:

- National Economic and Development Authority (NEDA);
- Department of Interior and Local Government (DILG);
- Department of Education, Culture and Sports (DECS);
- Department of Science and Technology (DOST);
- Department of Trade and Industry (DTI); and
- Department of Transportation and Communications (DOTC).

Three (3) private sector representatives shall be chosen by the Information Technology Foundation of the Philippines (ITFP) from sectors in the IT industry.

Moreover, a representative from a Non-Government Organization (NGO) concerned with IT shall be member of the ITB. Committees may be formed for each of the five NITP 2000 components as well as for other IT concerns if deemed necessary. The basic functions of the ITB are as follows: policy formulation and planning, and monitoring of IT activities in the country.

ITB funding may come from the Medium-Term Philippine Investment Program and/or the Medium-Term Technical Assistance Program (both sub-components of the Medium-Term Philippine Development Plan), and coursed through and administered by NCC. Later, with the legislation of the appropriate law, ITB shall be an independent body reporting directly to the NEDA Board.

JICA