

## Introduction of National Program on Nano Technology (NPNT)

**Prof. Morris (Ming-Dou) Ker**

National Program on Nano Technology, Taiwan  
National Chiao Tung University  
Room701 CPT Building, No.1001 University Rd. Hsinchu 30010, Taiwan, R.O.C.  
Contact: [npntoffice@nctu.edu.tw](mailto:npntoffice@nctu.edu.tw)

### Abstract

National Program on Nano Technology (NPNT) launched in 2003 is a landmark project in Taiwan to promote the scientific and technological development of the country's academic and industrial sectors. Through the effort made by the NPNT, the promotion of industrial investments and economic competitiveness will be fostered by a continuous industry revolution in terms of resource development and realization of academic research results in practical products. The ultimate goal of the commercialization of nanotechnology can be accomplished in Taiwan.

To enhance the application of nanotechnology in Taiwan's industries and increase investment and output values, NPNT phase ii (2009–2014) is devoted to promoting commercialization in seven main areas:

(1) advance studies on nano science & nano technology, (2) biomedical & agricultural applications, (3) nanoelectronics and optoelectronics techniques, (4) energy and environmental applications, (5) nanomaterials and traditional industry, (6) instrument and equipment development, and (7) government policy and education projects.

Moreover, significant projects of government agencies and departments are continuously promoted, including projects on environment, health, and safety (EHS) crisis control and projects on nano education and training, nano scales and standardization, nanomark, academia–industry, and international collaborations.

To accomplish the program's mission, the NPNT interfaces and coordinates efforts from various government agencies, including the National Science Council, the ministry of economic affairs, the ministry of education, the atomic energy Council, the environmental Protection administration, the Department of health, and the Council of labor affairs, to enhance interdisciplinary research and technology development by the execution of the funded projects. The total budget in phase ii (2009–2014) is US\$595.6 million, allocated for the industrialization of nanotechnology (~68%), the advancement of fundamental research (~22%), and the execution of strategic projects (~10%), such as EHS and nanomark promotions. In addition, nanomark, established by the Nanotechnology industrialization Promotion Project steered by the industrial Development Bureau, has brought up the development of nano-related industries to create a quality image of nano products. Hence, nanomark can increase the competitive strength in both domestic and international markets.

### Figures

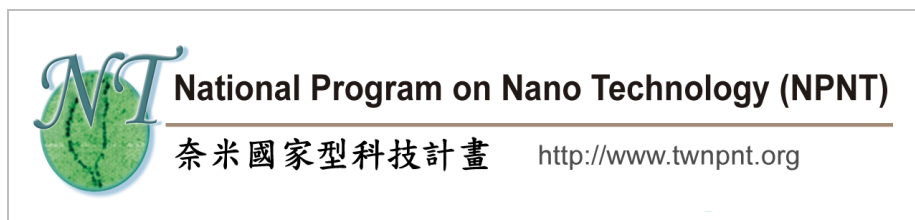


Figure 1: The logo of NPNT

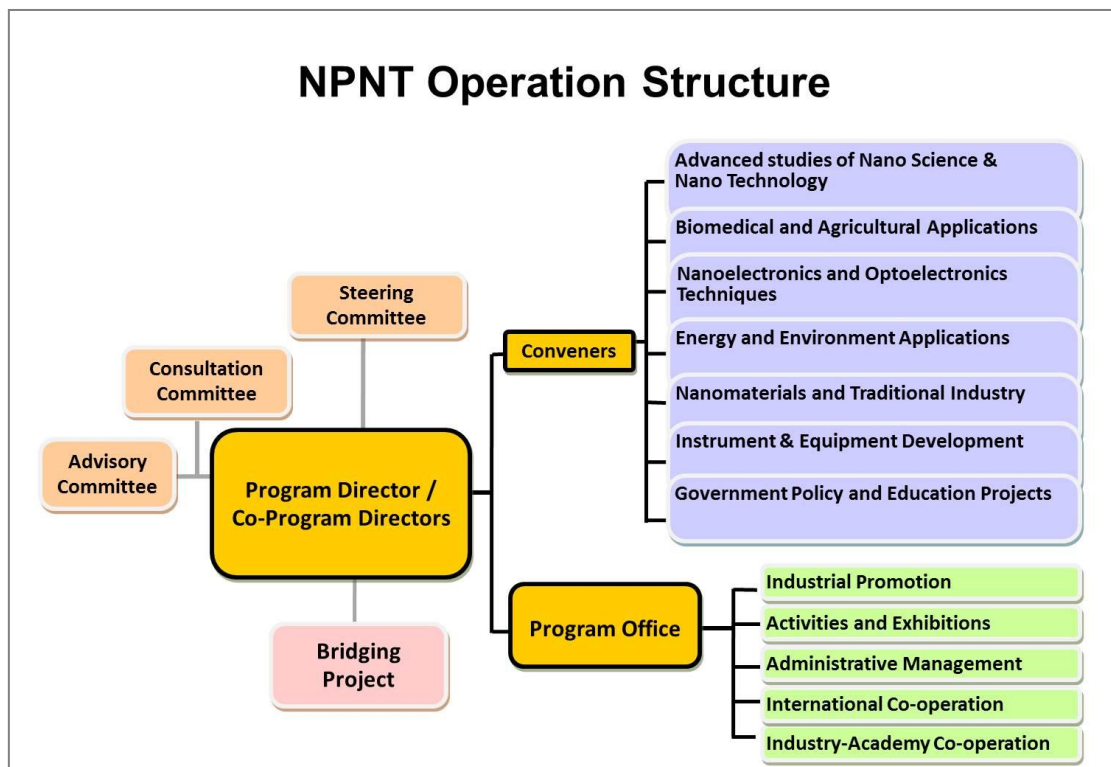


Figure 2: The operation structure for the NPNT network

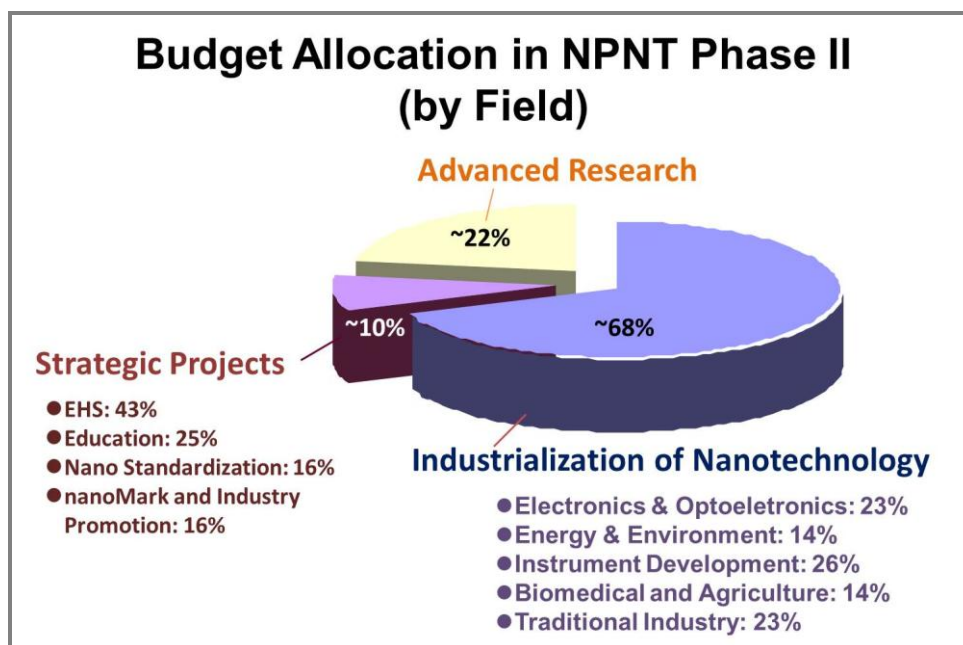


Figure 3: The pie chart for the budget allocation in NPNT Phase II (2009 ~ 2014)