

Strategy of Nanotechnology for National NanoFab

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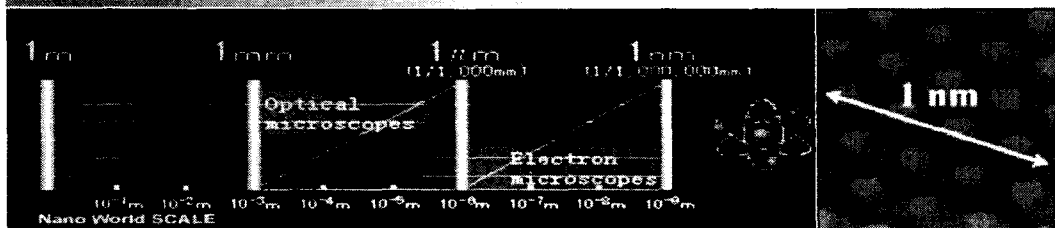
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1. 나노기술 - 나노기술이란?

나노(Nano)

나노(Nano)란 '10억분1'을 뜻하며,
1nm(나노미터)는 원자 3-4개의 크기에 해당

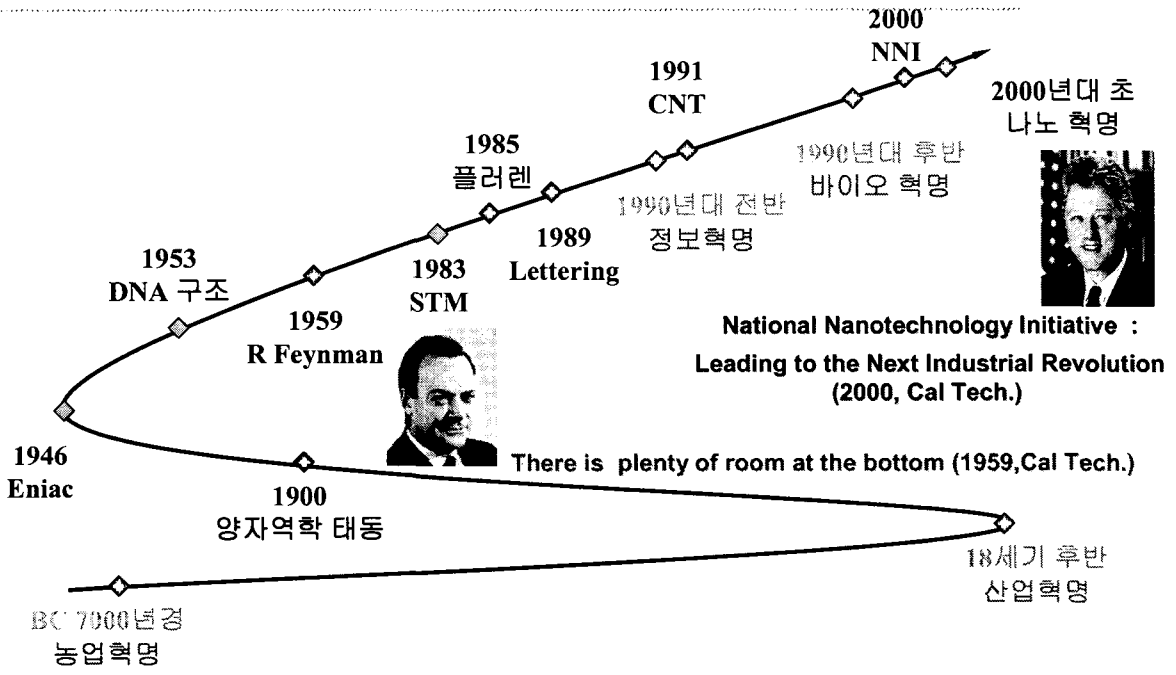


나노기술(Nanotechnology)

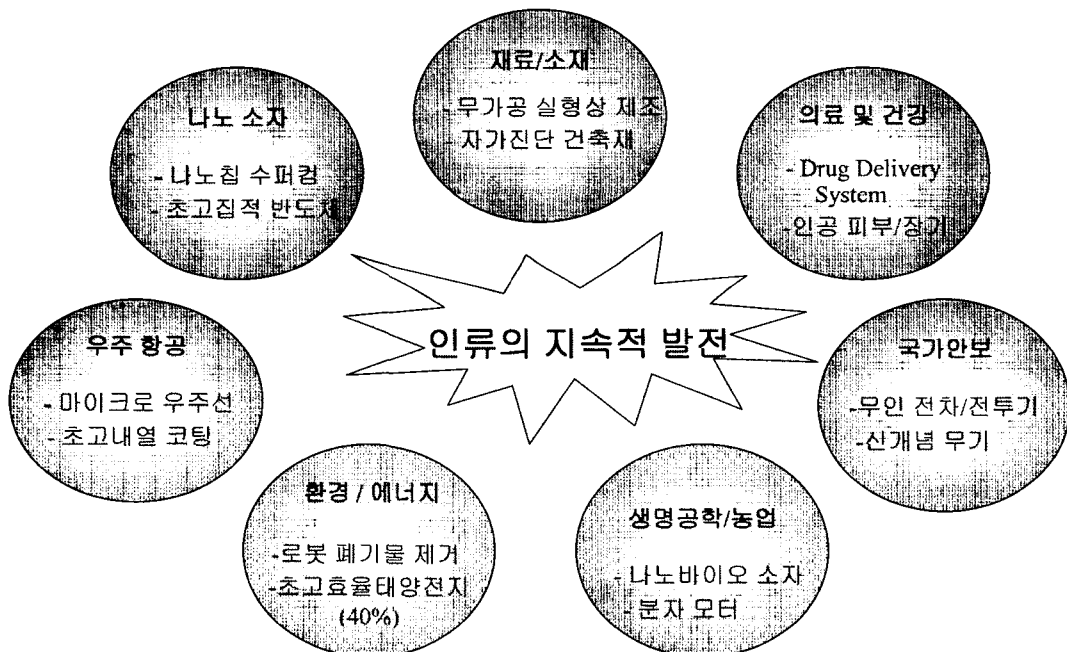
- 물체를 원자, 분자 수준(100nm 이하)에서 분석·조작·제어하여 새로운 물질을 창조하는 기술
- 최근 20년간 실현 가능성 입증, 2000년 초 본격적인 기술개발 시작

「There is plenty of room at the bottom」 R. Feynman (1959)

1. 나노기술 - 발전과정

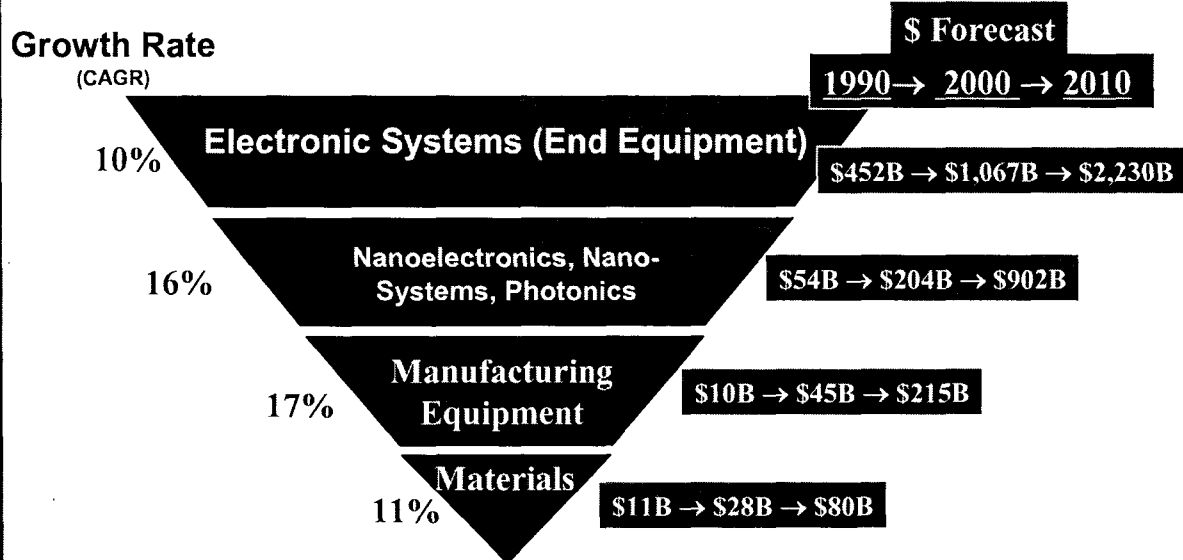


1. 나노기술 - 산업화응용



I. 나노기술 - 시장전망

The Electronics Industry: Market Sectors

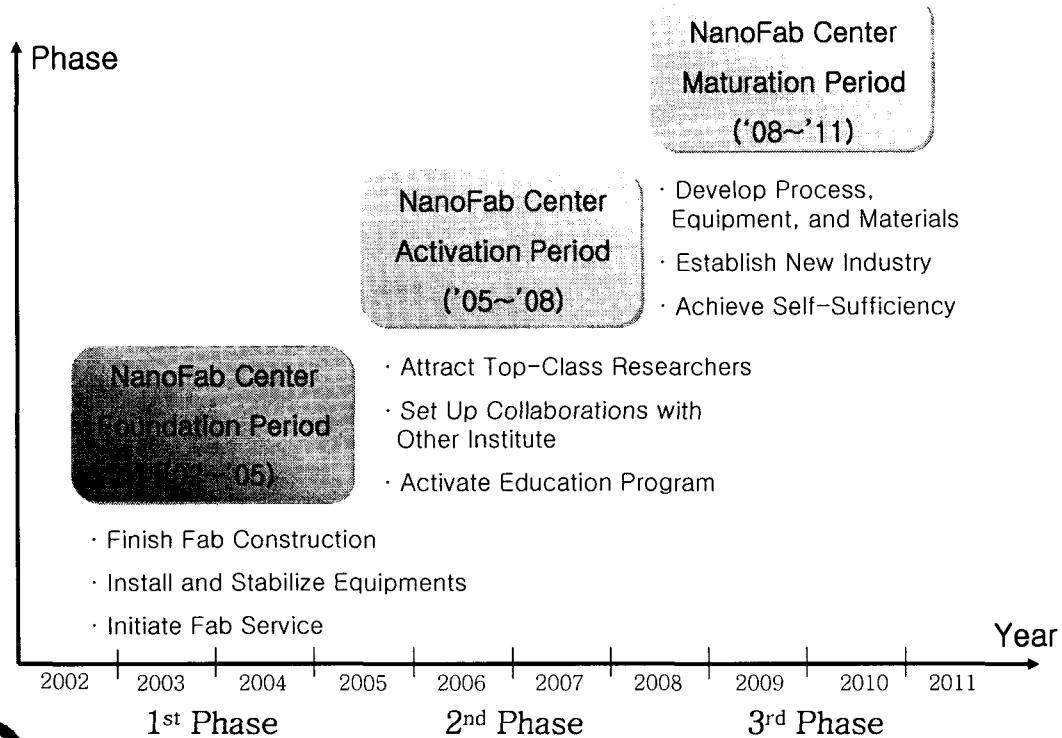


Source: SEMI-SEAJ, SIA WSTS, IC INSIGHTS, Rose Associates, SEMI Consensus Forecast

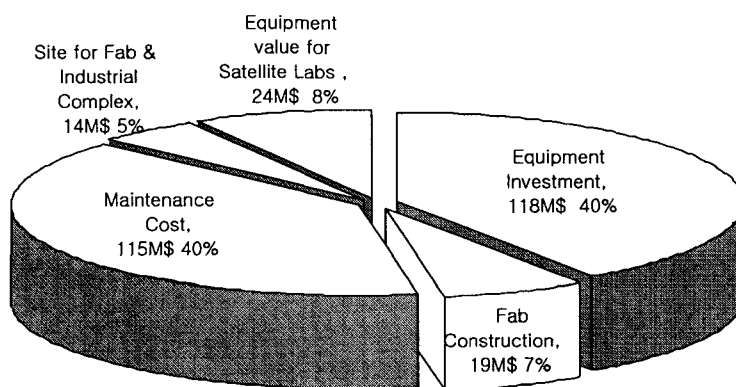
II. NanoFab - Mission

- 1) Establish a National NanoFab Center cleanroom capable of meeting the needs of nanotechnology development
- 2) Train nanotechnologists for hands on experience
- 3) Develop processing equipments for new nano related materials
- 4) Build network between academy, research institute and industry for nanotechnology development

II. NanoFab - Roadmap

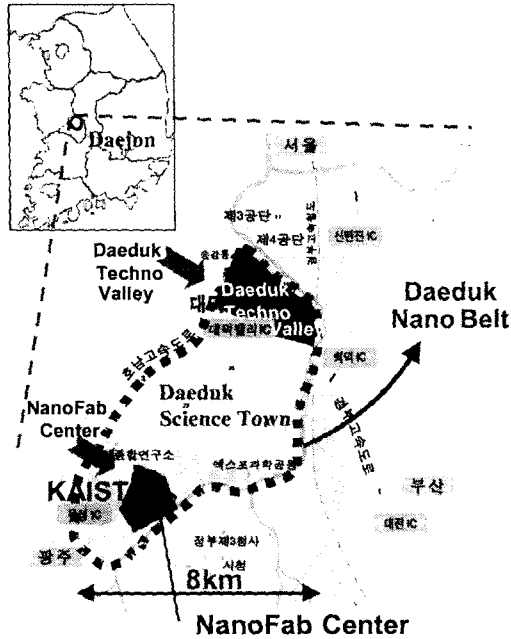


II. Nanofab - Spending

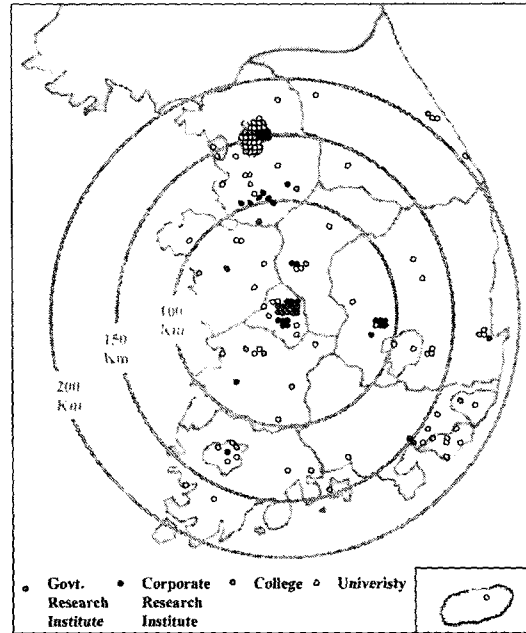


	M\$	%
Equipment Investment	118	41%
Fab Construction	19	7%
Operation & Maintenance	115	40%
Land for Fab & Industrial Complex	14	5%
Equipment for Satellite Labs	24	8%
Total	290	100%

II. Nanofab - Location : Center - Geographical



Geographic Location of NanoFab Center



Location of Possible User Institutes of NanoFab Center

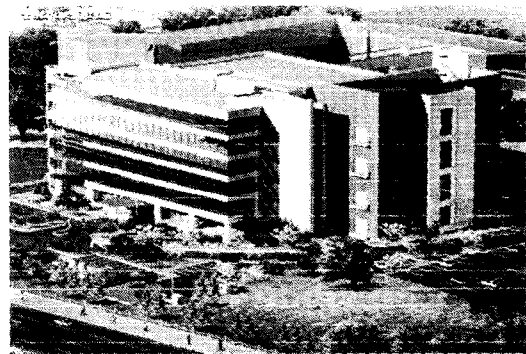
II. NanoFab - Facility Overview

- Building Capacity : Total 17,000 m²
 - Cleanroom : 4,085 m² (2 floor)
 - CUB* : 4,580 m² (4 floor)
 - Office : 8,339 m² (4 floor)

*CUB : Central Utility Building

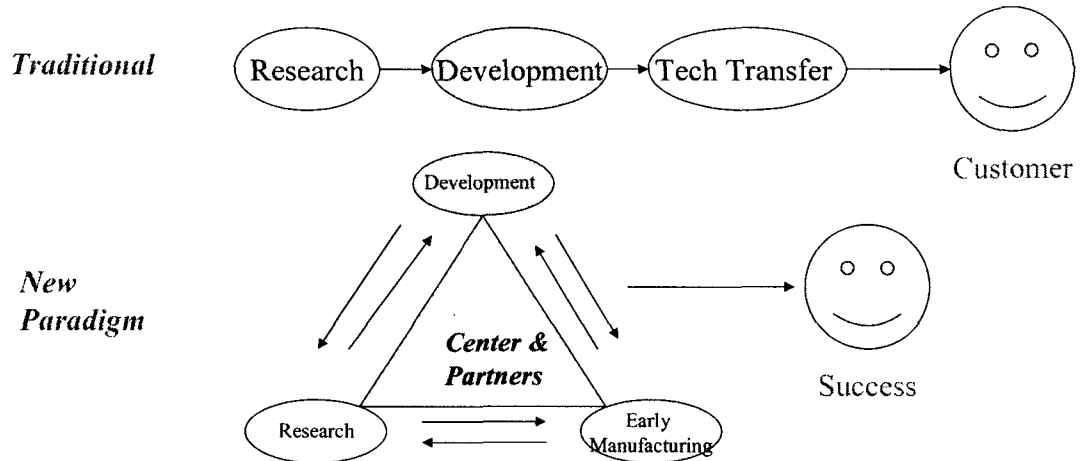
- Cleanroom Cleanness
 - Class 1 : 551 m²
 - Class 100T : 1,977 m²
 - Class 10k : 531 m²
 - Class 100k : 383 m²
 - Others : 644 m²

[Overview]

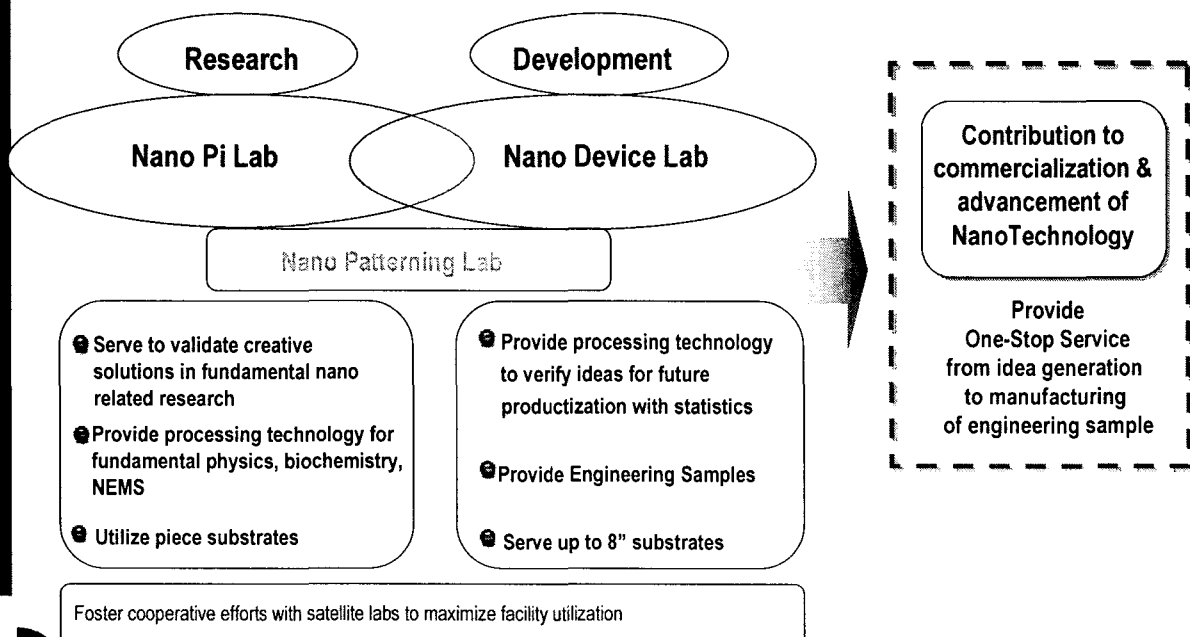


II. NanoFab – Paradigm Shift

Bridging R&D to the Industry



II. NanoFab - Concept of NanoFab



II. NanoFab - Field of foundry service

