CYPRUS'
TECHNOPARK PROJECT

TECHNOLOGICAL PARKS'
COMPETITIVE ENVIRONMENT

Presented by
Jacques MASBOUNGI
General manager of SAEM SACA

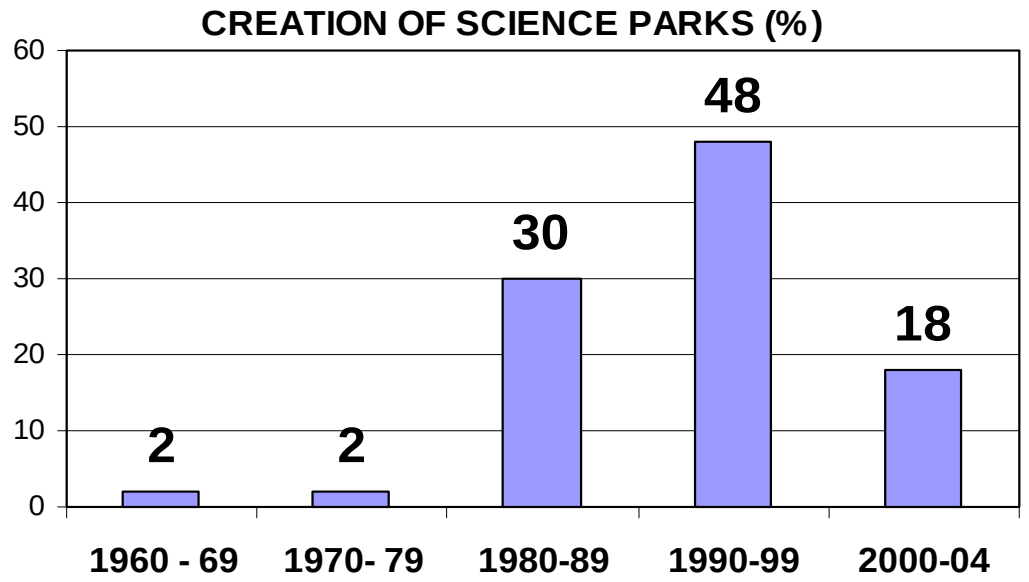
Contents

1. International events and trends that impact the development of technology parks
2. Key dates in technology parks' history
3. Technology parks : a worldwide phenomenon
4. Specificities of high tech parks around the world, examples : UK , SWEDEN and FINLAND
5. Likely competitors for CYPRUS (1 to 5), examples such as ISRAEL, GREECE, LEBANON, TURKEY, EGYPT and DUBAI
6. Conclusion

1. International events and trends that impact the development of technology parks

- Awareness of new rising technologies
- A constantly changing economy => compulsory reactivity of the financial and industrial community
- Strong competitivity of territories =>
    - Plugging into neighboring interesting markets
    - Participating to international networks
- Compulsory to rely on high level technical competencies
- Policy of quality certification
- Political stability and visibility
- Globalization => necessity to plan one's resources not to depend from decisions exclusively taken abroad

2. Key dates in technology parks history (1)



- A majority of the currently existing Science & Technology Parks in the world were created during the nineties
- 18% of the existing Science Parks have been launched in the first 2 years of the new century : Science / Technology Parks are a growing phenomenon
- World : 250 Science / Technology Parks (IASP members)

2. Key dates in technology parks' history (2)

1939 Hewlett Packard founded by Stanford University graduates in Palo Alto, "Silicon Valley's" early stages

1951 Stanford research Park founded : US' first on-campus technology park

1959 Research Triangle Park formed in North Carolina

1960 Pierre Laffitte, principal of the Mines engineering school of Paris, designs the « International city of wisdom, sciences, arts and technology »

Early 1970's - MATAM Scientific Industry Center founded in Haifa, Israel

1974 Decision to implement the « Parc international d'activités de Valbonne Sophia Antipolis"

2. Key dates in technology parks' history (3)

1980's	The decade of highest growth for technology parks development begins. (UK, Spain, Italy, Germany)
1982	University of Oulu partners with Finland's state-owned research and electronics center to create what would become Technopolis Oulu
1983	Japan passes technopolis law
1984	National technology Park founded in Limerick, Ireland
1991	India establishes Software Technology Parks of India
2001	Expansion efforts underway in many established technology parks and many new technology parks planned throughout the world (250 members of IASP)

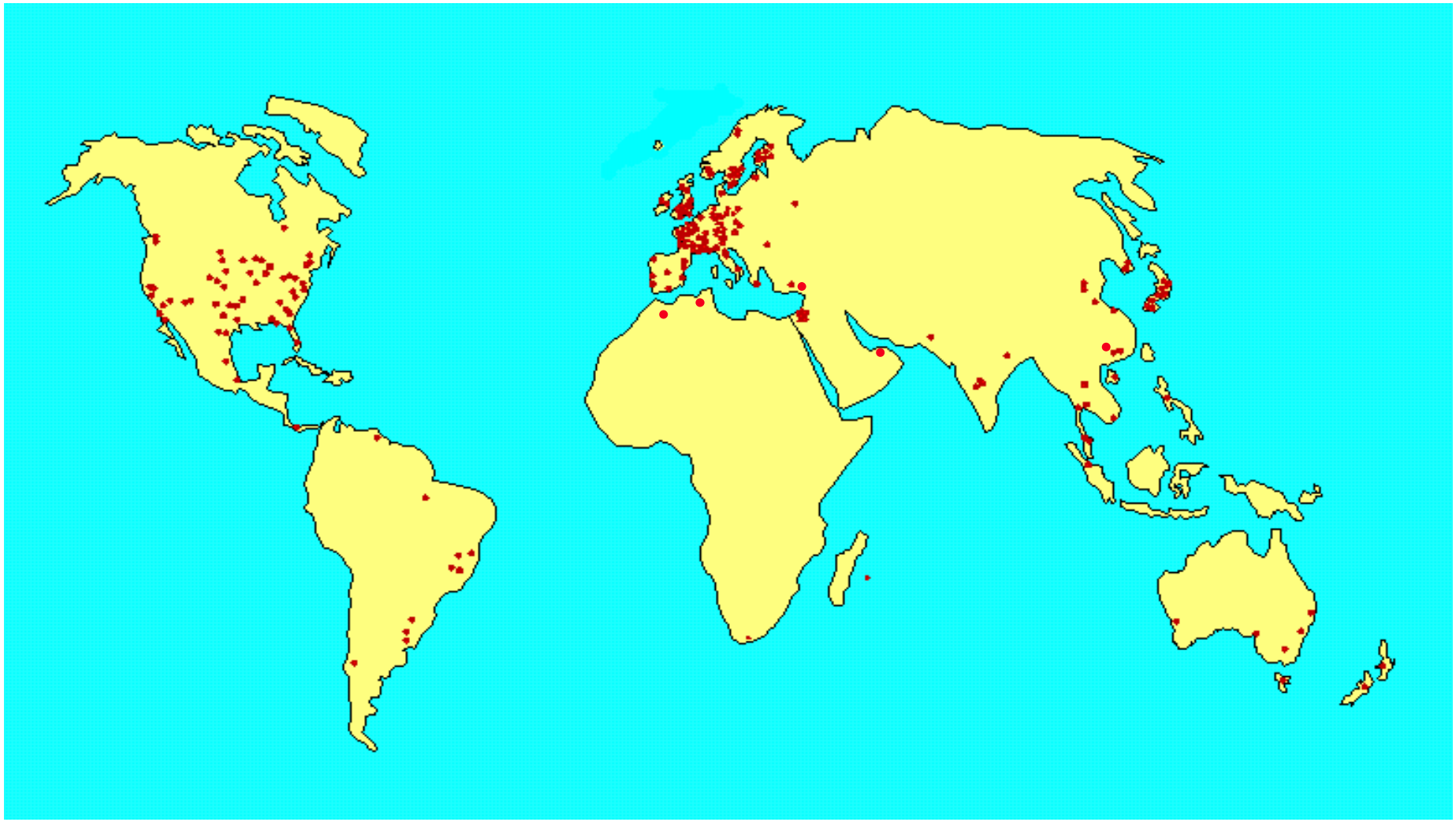
3.Technology parks : a worldwide phenomenon (1)

World : IASP, International association of science parks, created in Sophia Antipolis in 1983 (www.iasp.org), now based in Malaga (Spain)
250 members,
- 50% house less than 50 tenants
- 40% from 50 to 200
- 10% over 200

Next meeting : BERGAMO (Italy), Sept. 20-23, 2004

Europe : About 200 entities (parks, incubators, innovation centers)
Leaders : UK (63), France (58) and Finland (24)
(www.unesco.org/pao/s-parks/europe/europe.htm)

3.Technology parks : a worldwide phenomenon (2)



3.Technology parks : a worldwide phenomenon (3)

TYPOLOGIES OF PARKS

Technology and innovation centers

- Strong dependence on University labs and research centers
- Small size development (less than 30 000 sq.m. of built areas)
- Focused on incubation functions and start ups

High tech / science parks

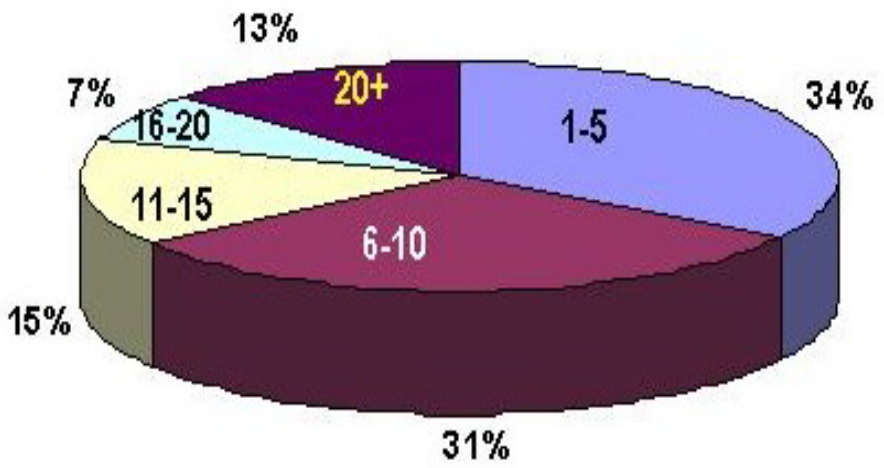
- Public locally initiated projects
- Medium size development (10 to 50 Ha)
- Specially targeting SMEs and R&D functions
- Dedicated facilities

Science cities – Technopolis (technopoles)

- Governmental initiative
- Development size over 50 Ha
- Light (high tech) production accepted
- Hosting University and research labs
- Housing and leisure facilities

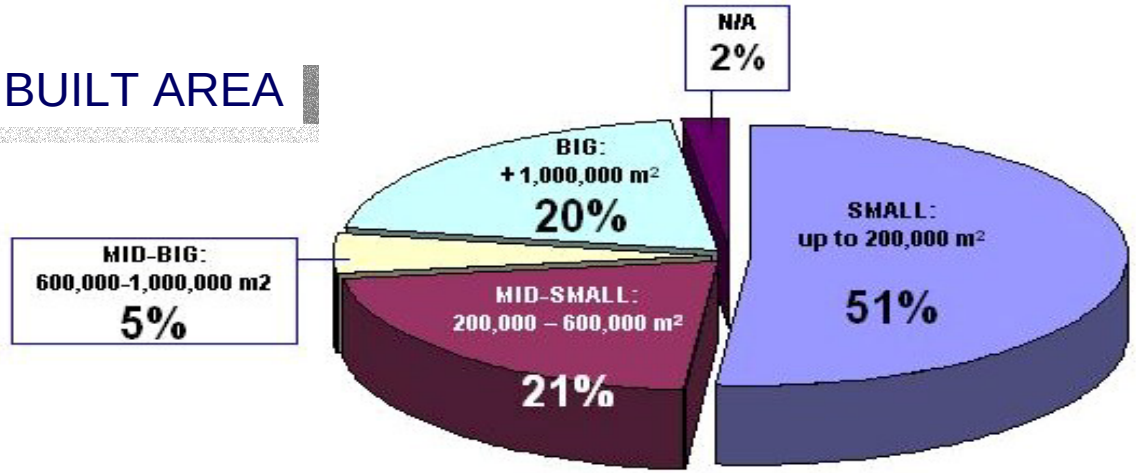
3.Technology parks : a worldwide phenomenon (4)

Statistics : Sample: 94 Science / Technology Parks



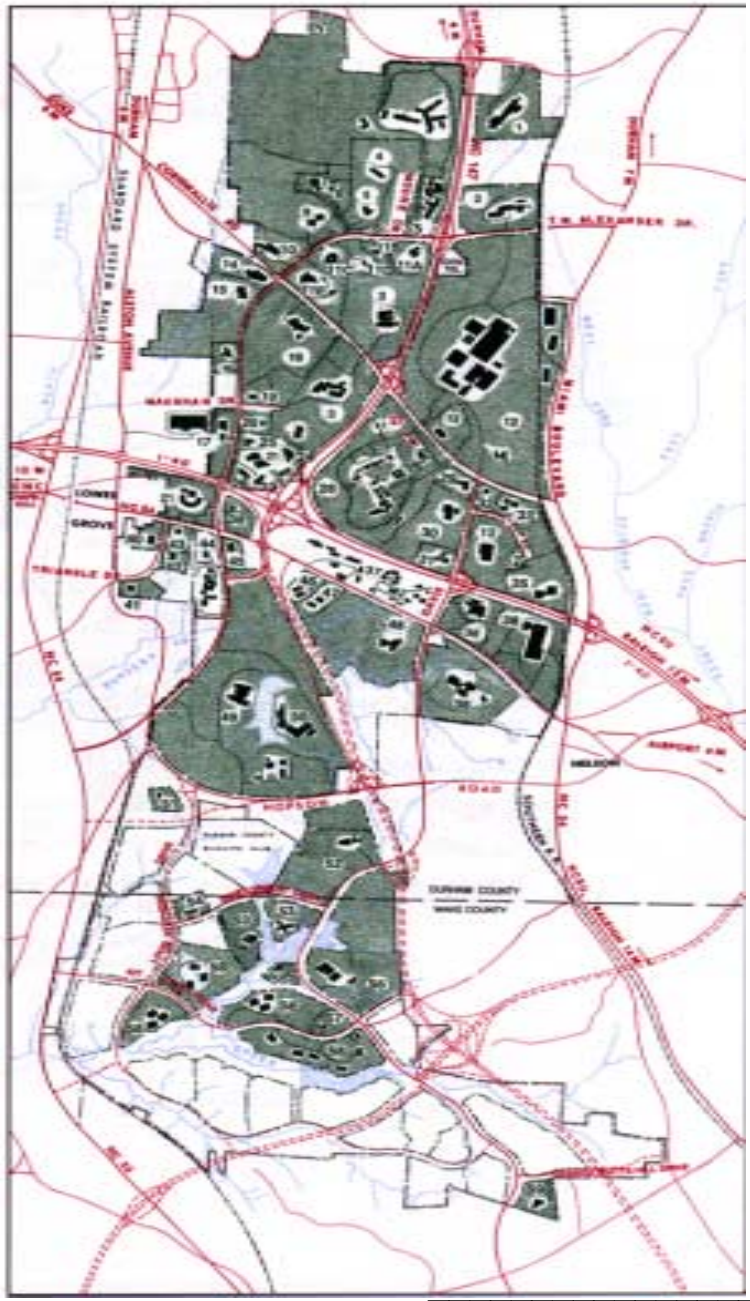
PARKS MANAGEMENT TEAM STAFF

BUILT AREA



4. Specificities of high tech parks around the world

- USA: initiative taken by universities along with territorial entities and combined with private finance
- INDIA, JAPAN and ISRAEL : government political decision based on public finance
- FRANCE local public initiative (excepted for Sophia Antipolis) with public funds
- GERMANY: a policy in favor of innovation centers development
- UK : projects started by universities (except for NET PARK DURHAM, currently financed by government)
- FINLAND : Projects based on industrial resources



USA

RESEARCH TRIANGLE PARK

- Research Triangle Park (RTP)
  a public/private research park, created in 1959
  by leaders from business, academia and industry
- Operated and managed by RTP Foundation
- Size : 2830 Ha
- Built area: 1,7 M Sq.m
- 37000 employees
  - IBM : 13300
  - GLAXO SMITH KLINE 5000
  - NORTEL 3000
  - CISCO 2500

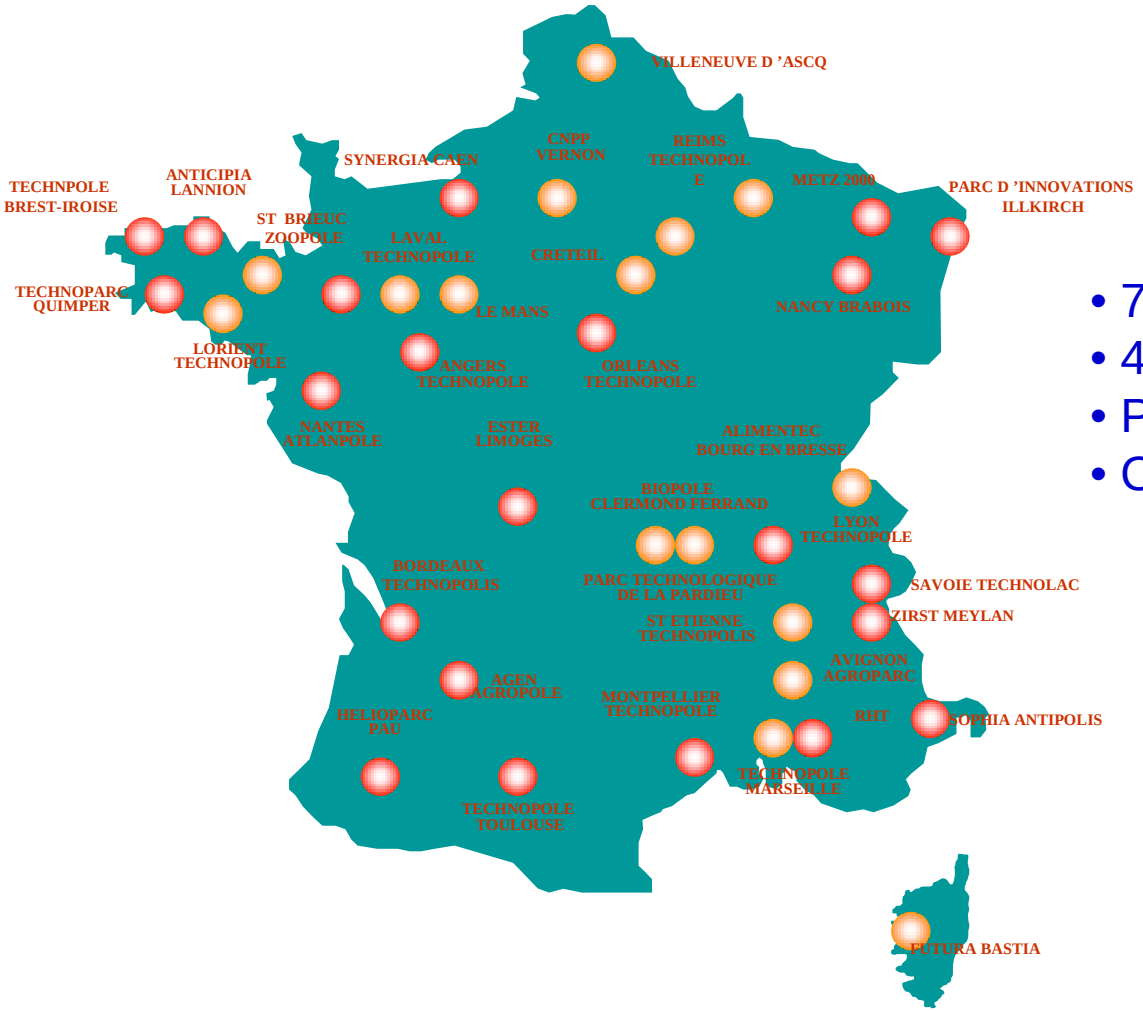
ISRAEL

MATAM PARK

- **Located at the southern entrance to Haifa,**
- **Matam Park is the largest and oldest industrial hi-tech park in Israel.**
- **Matam Park is a closed campus,**
  - Total area : 200,000 sq. m
  - Built area: 131000 sq.
  - 5,000 employees.
  - 50 leading hi-tech companies.
- **Managed and owned by Shatam**

  shares are controlled by
  - Matam Company
  - and the occupants of the Park.

FRANCE



- 79 MEMBERS
- 44 PARKS & 35 INCUBATORS
- PUBLIC PROJECTS
- OPERATED BY
  - LOCAL PUBLIC COMPANIES
  - ASSOCIATIONS
  - PUBLIC BODIES

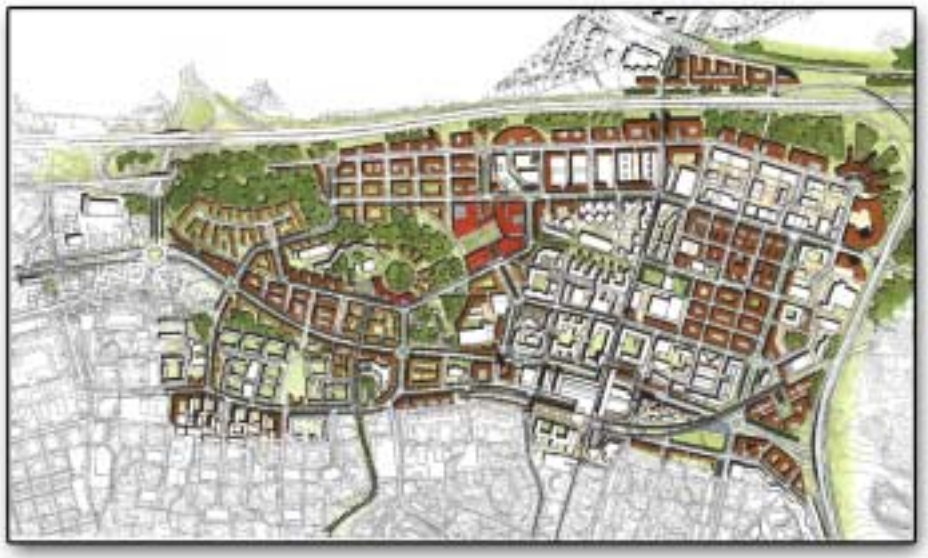
UNITED KINGDOM

- The number of science parks has significantly grown from two in 1982 to about 100 in 2003
- Founded in the 1980s when a number of universities in the UK recognised that the era of the knowledge based business had arrived and pooled their experience to guide others pursuing similar interests.
- The science park provides an organised link between the tenant companies and the research expertise of local academics, as well as business management know-how.
- Strong focus by science park managers on supporting tenant companies.
- Need for grow-on space typically ranges from 80 sq. m to 500 sq. m or even larger, some parks having attracted large tenant companies that bring stability and kudos to the site while also being in position to establish links with the host university.

CAMBRIDGE SCIENCE PARK

- Established by Trinity College in 1970,
- Cambridge Science Park is the UK's oldest and most prestigious science park.

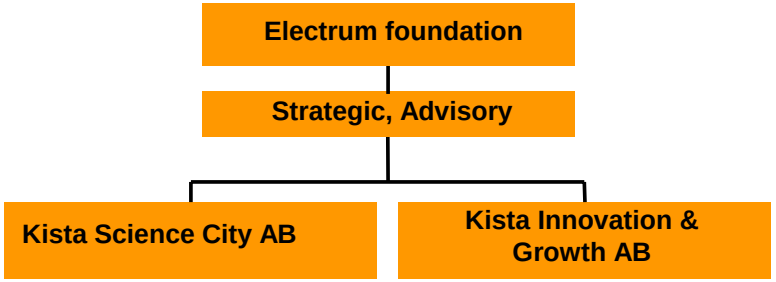
- Owned and managed by Trinity College
- 66 hi-tech companies
- 5,000 Employees.
- The Park covers 61.5 Hectares.
- 145,540 sq m of office accommodation



kista SCIENCE CITY SWEDEN

- Land area: 200 Ha
- Office space: 1,100,000 m^2
- 650 companies
- 28,000 employees (Ericsson 8,000)
- 15' from Arlanda airport and 15' from Stockholm city
- 2/3 of costs funded by city of Stockholm

The Kista Science City organisation



SERVICES FOR THE ENTERPRISES

Training and consulting:
- **Founding a new enterprise**
- **Business management**
- **Financing**
- **IPR and other legal services**
- **Marketing**
- **Communications**

Incubators
Business know-how transfer
Contacts in Finland and abroad
Top-notch premises with facilities
Company and personal services
Programmes, networks: CoE, TULI, IRC

FINLAND

- 22 technology/science parks
- 550 employees
- 100 M€ turnover

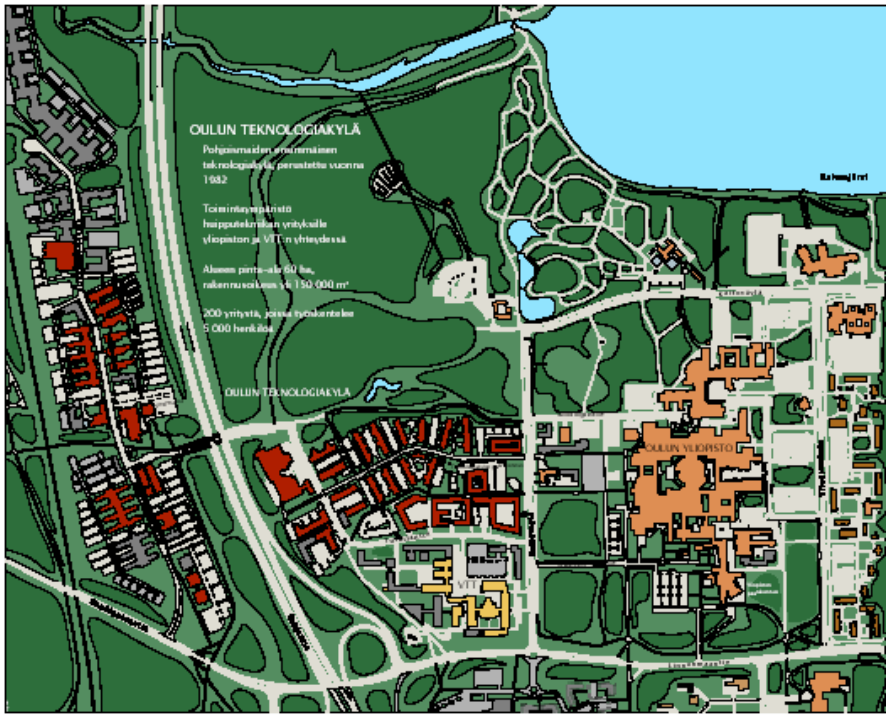
Operating companies in the science parks
- 1 600 enterprises / organizations
- 32 000 experts
- 1 000 000 m2

Details on each park :

http://www.tekel.fi/english/science_parks/contacts/

Oulou TECHNOPOLIS
FINLAND

- ESTABLISHED IN 1982.
- 8,000 EMPLOYEES
- 255 COMPANIES
- 3 DEVELOPMENT SITES
- CITIES OF OULOU AND VANTAA OWN 25% OF SHARES



- **TECHNOPOLIS DESIGNS BUILDS AND OPERATES PREMISES**

GERMANY

NORDOSTPARK NURNBERG

- ESTABLISHED 1997
- OWNED AND OPERATED BY IGV
- SIZE: 3 Ha (+ 1,2 Ha for further dev.)
- BUILT AREA 240 000 sq.m
- NO UNIVERSITY OR EDUCATION ACTIVITIES

5. Likely competitors (1)

- ISRAEL

  + Strong innovation policy
  + Famed universities
  + Positioned on worldwide markets since no local markets available
  - Politically isolated
  - Political and military conflict
  - Non European

5. Likely competitors (2)

- GREECE

  + Numerous projects (PATRAS, THESSALONIKI, EPIRE, CRETE)
  + Good university level
  + Tremendous human resources
  + Belongs to E.U
  - Weak state involvement

GREECE

Thessaloniki Technology Park

- 12 km away from the centre of the city of Thessaloniki
- Established in 1990 by the Chemical Process Engineering Research Institute (CPERI),
- Size 25,000 m2 of land

- The idea for a Technology Park in Crete dates back to 1988
- Launched by FORTH (Foundation for Research and Technology- Hellas)
- The managing company of STEP- C (EDAP SA) was established in Dec. 1993

Science & Technology Park of Crete

5. Likely competitors (3)

- LEBANON

  + Good university level
  + Very good local entrepreneurs
  - Political instability
  - Weak state involvement

LEBANON

BEIRUT EMERGING TECHNOLOGY ZONE

- 100 Ha owned by local County
- 30 M USD investment by Govt. (US. aid)
- 450 000 sq. m to be built
- Operated by IDAL (National governmental development and promotion agency)

Berytech
Technological Pole

- Launched in 1999
- 1,5 Ha of land owned by St. Joseph University
- 7500 sq.m incubation center (5,6 M USD)
- Further development plans (5 Ha)
- 12 companies
- 180 employees

5. Likely competitors (4)

- TURKEY

  + Good university level
  + Tremendous human resources
  + Strong political support
  + At the geographic and cultural crossroads between Europe and Asia
  - Uncertainty about integration in Europe
  - Strong discrepancy between urban and rural areas' economic development

- EGYPT

  + Young population
  - Weak state involvement
  - Middle class university level
  - Not very open to international market places

5. Likely competitors (5)

- DUBAI

  + Strong international position
  + Availability of finance
  + Strong political support to development
  - Rather weak scientific competencies
  - Distant from European markets
  - Unavailability of local human resources

UN ITED ARAB EMIRATES

مدينة دبي للانترنت
DUBAI INTERNET CITY

- 400 Ha of land available
- Full tax exemption
- Private investment : 700 M USD (excluding land)
- Owned and operated by Sheikh Mohammed bin Rashid Al Maktoum
- 320 companies

6. Conclusion

- Technological parks are being created and developed in all modern areas, worldwide
- They are the “manufacturing plants” of the 21st century
- New knowledge and technologies, new products development are “manufactured” in high tech parks
- Outside ISRAEL, limited competition between high tech parks in East Mediterranean region and the Middle East
- An opportunity is open for CYPRUS to create the most important and advanced technological park of that region