**11.947 CRE – CDD DUSP – Media Lab Joint Faculty-Student Seminar**

# New Century Cities:
## Real Estate, Digital Technology, and Design

Session 1

# Course Logistics

# Calendar

| Date | Session | | Opening Thoughts |
|------|---------|---|------------------|
| Sept. 15 | **1** | Introduction<br>Example projects and prospects | Michael Joroff,<br>Dennis Frenchman,<br>Susanne Seitinger |
| Sept. 29 | **2** | Placemaking and Urban Design Value<br>Will this improve the livability of the city? | Dennis Frenchman,<br>Whitney Foutz,<br>Susanne Seitinger |
| Oct. 13 | **3** | Technological Value<br>What systems are being developed? | Bill Mitchell,<br>Ryan Chin (TBC) |
| Nov. 3 | **4** | Social Value<br>Who will benefit and how? | Michael Joroff,<br>Keith Hampton<br>(TBC) |
| Nov. 10 | **5** | Real Estate Value<br>What are the financial incentives for developers?  How can we think about value in a more comprehensive and differentiated way? | Tony Ciochetti,<br>David Geltner,<br>Sean Sacks |
| Nov. 24 | **6** | Reflection | |
| Dec. 1 | **Extra** | Hold this date for any make-up sessions. | |

# The Overarching Research Question

*What does adding "extraordinary value" mean?*

# Projects and Prospects

*Questions investigating the fundamental changes taking place as a result of pervasive digital technology:*

- Will our use of the city change as media and communication technologies permeate everyday life? Will new patterns of living and working emerge?

- What form of places and projects will be demanded to serve these new activities?

- Which technologies are most relevant to the design of new real estate products and urban spaces?

- Are the physical boundaries of public and private shifting in these cutting-edge developments?  What questions of accessibility does this raise within the projects and in city spaces on a broader scale?

- Who will benefit and who will lose in this process of transformation?

***Questions for developers and the real estate industry:***

- What is the "value proposition" of cutting-edge projects that incorporate advanced technology and sensitive design?   What are the models from real estate practice, which can be applied to these projects?

- In building the New Century City, what is the role of the private sector and the public?  Where are their realms?

- What new partnerships are being formed among media and advanced technology companies, developers and government entities?

- What kinds of developers are attracted to experimenting with these cutting-edge projects?

- What changes must take place in the real estate development industry to accommodate cutting-edge projects?  Where in the development process are the most changes needed?

# Project Locations

*Mission Bay: California, USA*

*MIT: Cambridge, USA*

*Florianopolis: Brazil*

*Zaragoza: Spain*

*Arabianranta: Helsinki, Finland*

*Crossroads, Copenhagen: Denmark*

*DMC, Seoul: South Korea*

*One-north: Singapore*

# Holistic Developments in the United States, Europe, and Asia

*Crossroads Copenhagen, Denmark*

*Arabianranta, Helsinki, Finland*

*Digital Media City, Seoul, Korea*

*one-north, Singapore*

*Mission Bay, San Francisco*

*MIT Environs*

*...*

# Crossroads Copenhagen, Denmark

- *University-led develop.*

- *440,000 sq .m.*

- *20,000 students,*

- *6,000 employees,*

- *1,500 residents*

# Arabianranta, Helsinki, Finland

- *Public-private development group*

- *6,000 students*
- *8,000 employees*
- *10,000 residents*
- *85 ha*
- *130,000 new offices, 500,000 sq.m.*
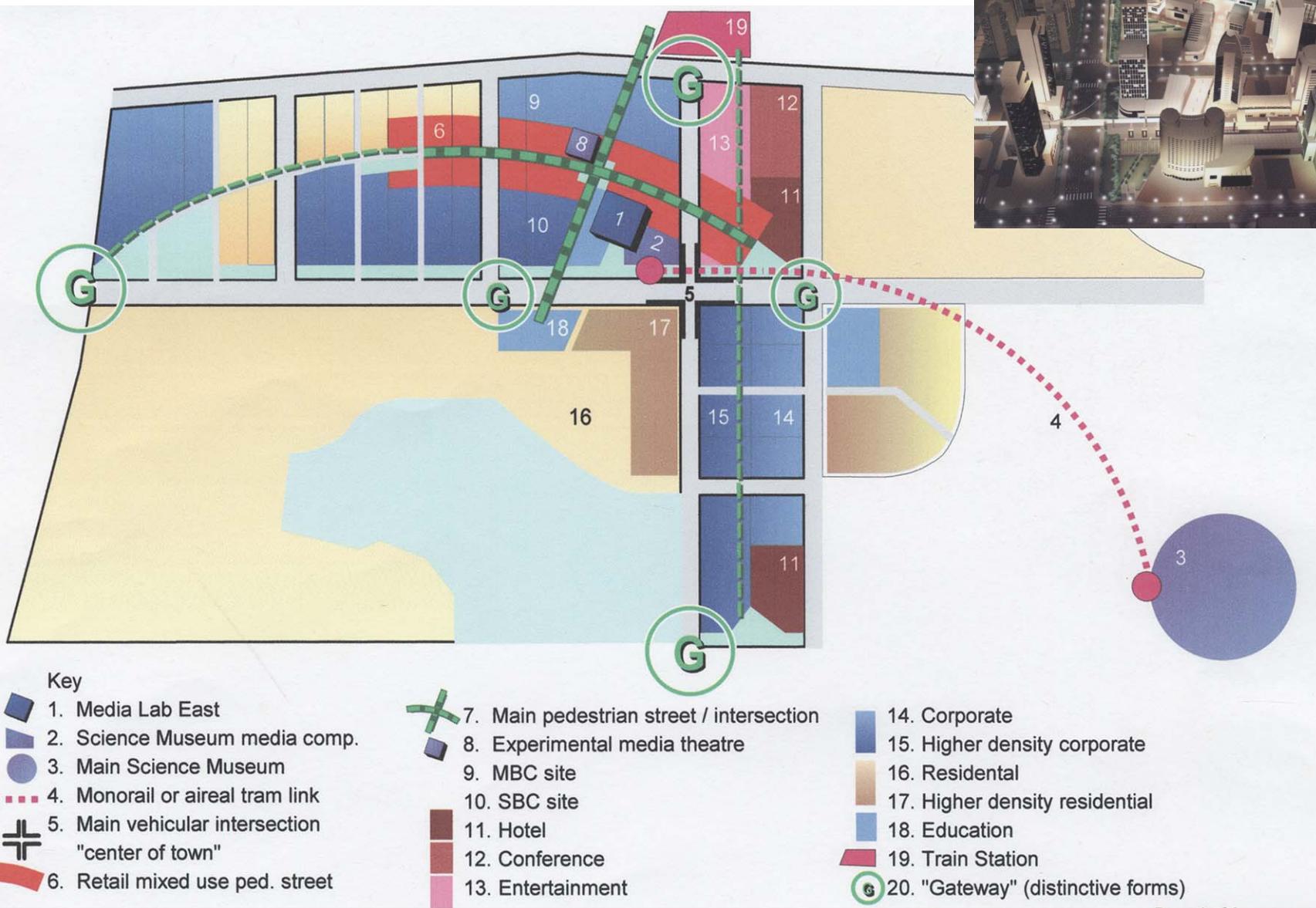
- *Home of the future*

- *Virtual Village*

- *University of Art and Design*

- *Ecological agenda*

# Digital Media City, Seoul, Korea

- *Seoul Development Institute*
- *135 acre site*
- *Incubators, live-work, civic and cultural center, entertainment and high-tech, high-rise office*

# Digital Media City, Masterplan



Key

1. Media Lab East
2. Science Museum media comp.
3. Main Science Museum
4. Monorail or aireal tram link
5. Main vehicular intersection "center of town"
6. Retail mixed use ped. street
7. Main pedestrian street / intersection
8. Experimental media theatre
9. MBC site
10. SBC site
11. Hotel
12. Conference
13. Entertainment
14. Corporate
15. Higher density corporate
16. Residental
17. Higher density residential
18. Education
19. Train Station
20. "Gateway" (distinctive forms)

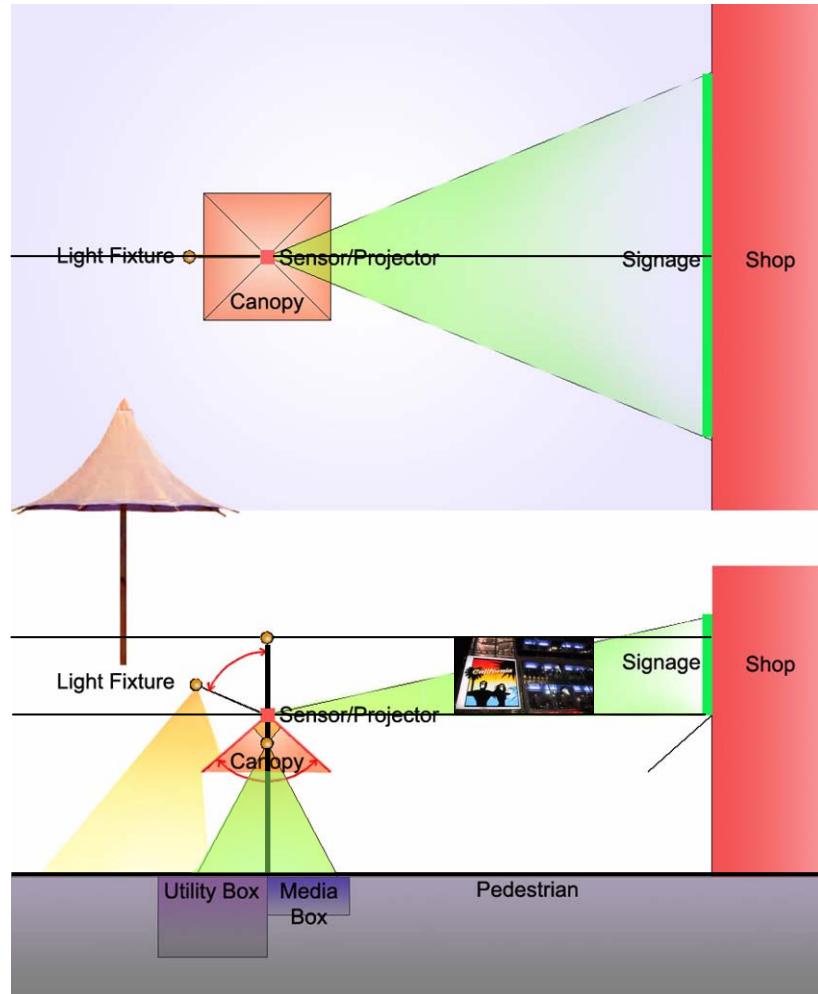# Digital Media City, Prototype Street Furniture

Image courtesy of Lining Geng

# one-north, Singapore

- *Dynamic mixed-use*

- *Constant rejuvenation*

- *Seamless connectivity*

- *Unique identity*

# one-north, Singapore

- *JTC Development*

- *450 acre site*

- *3.9 million square meters of mixed-use space*
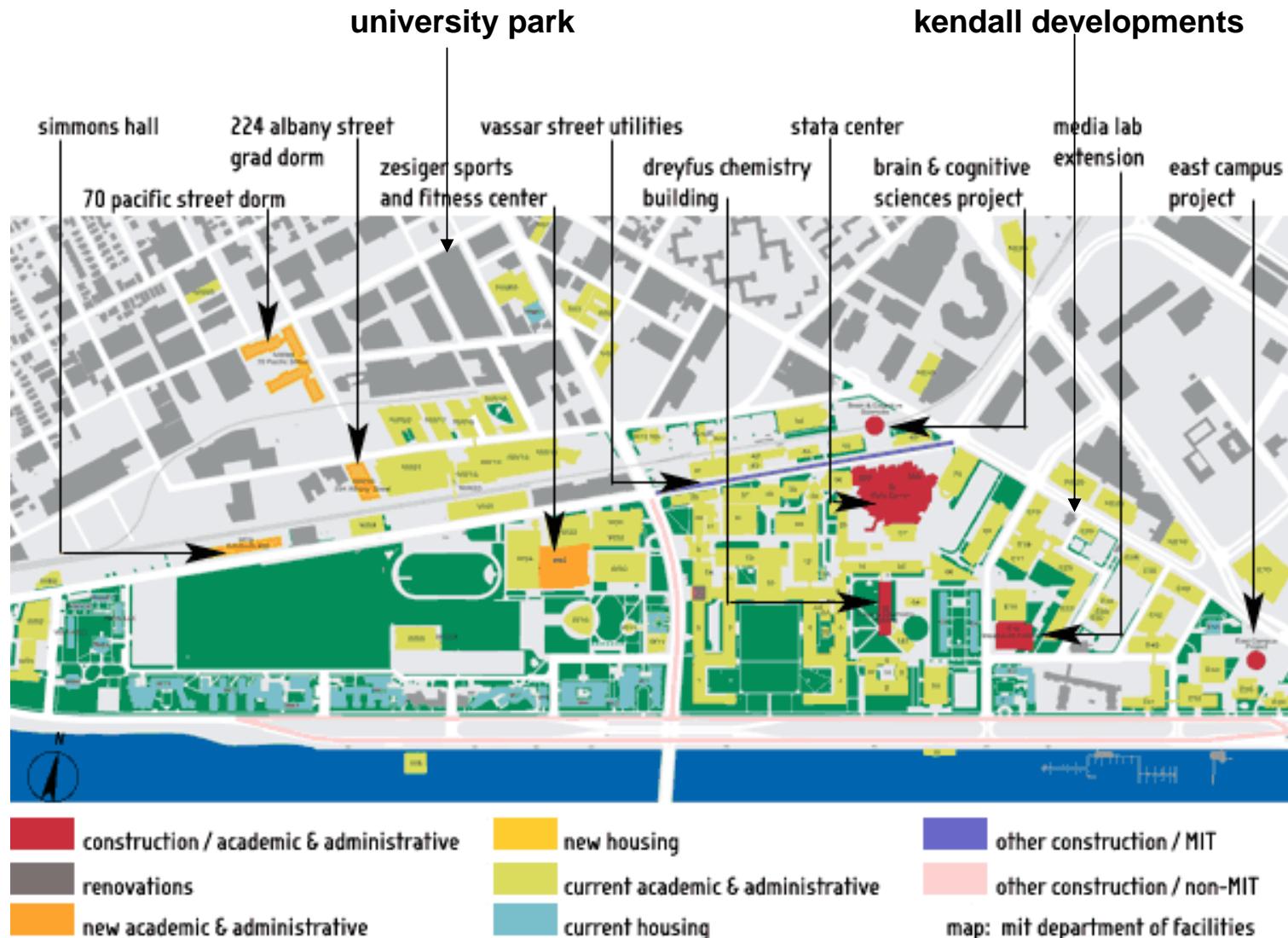
# one-north, Singapore

# Mission Bay, San Francisco

- *Catellus Development Corporation*

- *303-acre redevelopment along San Francisco waterfront*

- *5 million square feet of corporate office space, specifically for life sciences*

- *6,000 residential units*

- *UCSF research campus*

# Mission Bay, San Francisco

*Similar program to University Park but a few steps further:*

*•Partnership with SBC Pacific Bell to create the first California community that is pre-wired with voice, data, video, and TV over one fiber optic network.*

*•Relationship of project to university is key: 2/3 of the land for the UCSF campus was donated by Catellus and the rest by the city of San Francisco.*

# MIT and Environs: New Construction



**university park**

**kendall developments**

simmons hall

224 albany street
grad dorm

70 pacific street dorm

zesiger sports
and fitness center

vassar street utilities

dreyfus chemistry
building

stata center

brain & cognitive
sciences project

media lab
extension

east campus
project

construction / academic & administrative

renovations

new academic & administrative

new housing

current academic & administrative

current housing

other construction / MIT

other construction / non-MIT

map: mit department of facilities

# MIT and Environs

*Universities, particularly MIT, are places to develop and test new ideas, therefore MIT can serve as an experimental microcosm for the New Century City.*

## Physically:

- *"Infrastructure of Invention"*

- *A Goal: to create inspirational spaces that are conducive to social and intellectual interaction as well as a more interactive learning environment.*

# MIT and Environs

*Digitally:*

- *MIT Open Course Ware*

- *Long-Distance Learning and Collaboration*

- *Wireless Network*

*Socially:*

- *Is this rapid transfer of ideas democratizing?*

- *Who isn't benefiting and who could lose?*



*Red MIT buildings have complete wireless internet access*

# MIT and Environs: Stata Center

- *A physical place that reinforces these digital ideals of collaboration and the rapid and open transfer of information.*

- *The IMAGE of digital technology?*

# MIT and Environs: University Park at MIT

- *Forrest City Enterprises, owned by MIT*

- *27 acres on the former Simplex Wire and Cable Company Site*

- *Campus-like environment for biotech research that builds on its proximity to MIT and its resources*

- *Mixed-use: Office, Residential (420 units), Hotel and Commercial*

# University Park at MIT: High-Tech Image

*Hotel@MIT*

*"the most innovative hotel in Cambridge"*

*Is this claim more about image and branding?*

- *Email-address name*

- *Décor inspired by technology (ex. Circuit board patterns in furniture, robots from the MIT Artificial Intelligence in the lobby*

# Genzyme Buildings, East Cambridge

- *Lyme Properties*

- *10 acre mixed-use development with biotech, hotel, and residential uses.*

*Genzyme Corporate Headquarters*

- *LEED Platinum rating expected for green building.*

- *Former brownfields site*

- *Cuttting-edge design is a product of advanced green technology.*

# IT-Firms and Technology-Based Initiatives

*Today's Technologies*

*The IT and Media Firms*

*NCC Cases and their Partner-Firms*

*NYCwireless*

*History Unwired*

*...*

# Today's Technologies

**Wireless Communication**
- *Wi-Fi, WiMax, Cellular, Bluetooth, RFID*

**Location Awareness**
- *Automated positioning*

**Displays**
- *Programmable, addressable*

**Personal Devices**
- *Hand Held Computers, Smart Cards*

**Location-specitif informaiton**
- *Geo-spatial databases*

**Sensing**



**How can New Century Cities reconcile technology cycles vis-a-vis development cycles?**

Image courtesy of Lining Geng

# IT and Media Firms
## The Bigger Players

- *HP*
- *Nokia*
- *Samsung*
- *Sony / Sony Ericsson*
- *BBC*
- *Disney*
- *Telefonica (Spain)*

- *British Telecom*
- *Comcast*
- *Intel*
- *Microsoft*
- *Motorola*
- *Sonera (Finland)*
- *IBM*

**What is the role of local ITC firms and smaller niche players in New Century Cities?**

# New Century City Projects:

- *Crossroads, Copenhagen*
- *one-north, Singapore*

# Other Initiatives:

- *Digital Village Program*
  - Help underserved communities fulfill their aspirations for participation in the digital age
  - E. Palo Alto, CA; Baltimore, MD; Tribal, CA
- *Mobile Bristol*
  - Research and develop new mobile technology applications
  - World's first global positioning system (GPS) 'radio play' recreating the 1831 riot for tourists

## New Century City Projects:

- *Crossroads, Copenhagen*
- *Helsinki Virtual Village*

*"NOKIA sees Crossroads Copenhagen as a unique network combining research and knowledge from private corporations and public institutions. A place to gain experience, get ideas and test new concepts. A place where we can build the foundation for the next generation of the mobile information society."*

Karsten Vandrup, Manager, Strategic Planning, Nokia

**Research Initiatives**:

- *Urban Atmospheres Project which includes:*
  - *Urban Probes*
  - *Jabberwocky*
    - Freely available bluetooth mobile phone application designed to promote urban community connections and a sense of familiarity, anxiety, and play in public urban places
  - *Familiar Strangers*

- *People and Practices Research Team:*
  - Group of social scientists, designers and engineers within the company exploring the human side of technology.

# wirlessNYC, New York City

- *Wireless, plug&go spaces in business improvement districts:*

   Lower Manhattan Redevelopment
   Corporation,
   Bryant Park initiative

- *wirelessNYC: providing free wireless service in public places throughout the city*

# History Unwired, Venice

*Constant access to audio tours, a city map, and an online scrapbook from their photos and video captured ...*

# History Unwired, Venice

- *Allow tourists to preview or review their visits to historic sites while in transport*

- *Consolidate various maps, books and pamphlets*

- *Guide travelers through alternate routes*

- *Provide a source for e-mail and phone contact*

- *Access to the latest transportation and entertainment schedules*

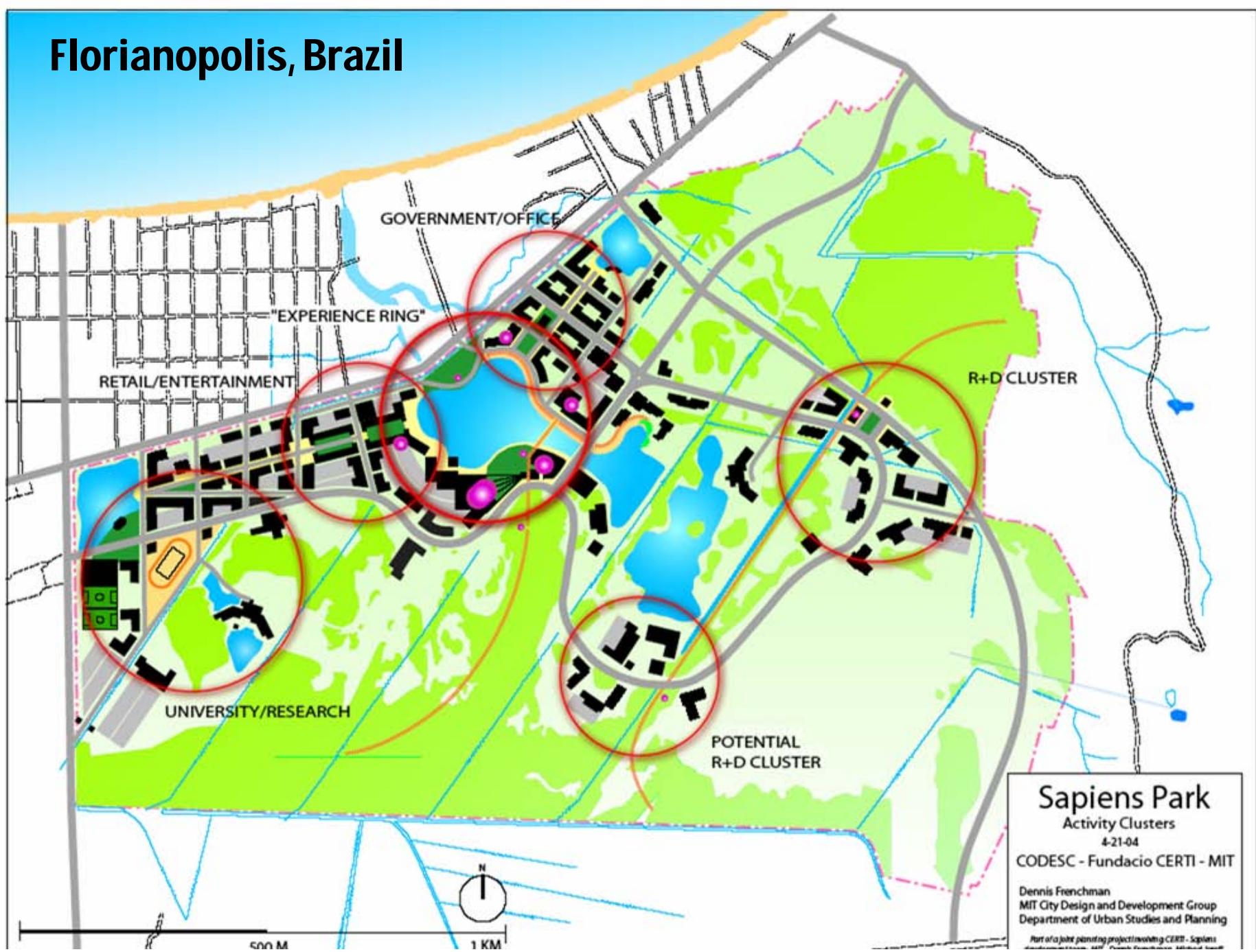- *Make use of the video, image capture, and networking capabilities of this generation of Smartphones.*

# Planned Projects

*Florianopolis, Brazil*

*Zaragoza, Spain*

*...*

Florianopolis, Brazil

GOVERNMENT/OFFICE

"EXPERIENCE RING"

RETAIL/ENTERTAINMENT

R+D CLUSTER

UNIVERSITY/RESEARCH

POTENTIAL
R+D CLUSTER

Sapiens Park
Activity Clusters
4-21-04
CODESC - Fundacio CERTI - MIT

Dennis Frenchman
MIT City Design and Development Group
Department of Urban Studies and Planning

Part of a joint planning project involving CERTI - Sapiens

500 M          1 KM

POTENTIAL
S.C. GOVERNMENT BUILDING

FLORIANOPOLIS CIRCUS /
SHARED SERVICES

BEACH / NATURAL EDGE

SAPIENS OVERLOOK
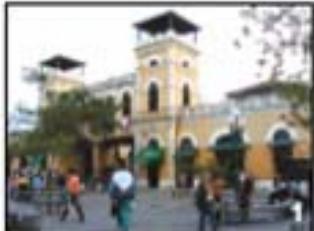
SHOPPING /
MARKETPLACE

RETAIL CIRCUS

PARKING

EXPERIENCE VENUES

ARENA    EXPERIENTIA    CIRCUS    NODE

TRADITIONAL PLACES WITH
CONTEMPORARY DESIGN AND USE

RESTAURANTS /
ENTERTAINMENT

ARENA / MIXED USE

TENSILE STRUCTURE /
SAPIENS GREEN

SYMBOLIC TOWER

PEDESTRIAN TRAIL

EXPERIENTIA

HOTEL/CONFERENCE

SCIENTIA

100M        200M

## Sapiens Park
### Main Cell
4-21-04
CODESC - Fundacio CERTI - MIT

Dennis Frenchman
MIT City Design and Development Group
Department of Urban Studies and Planning

part of a joint planning project involving corm - sapiens
development teorg.ser-certed.renchman.michael.eds't

# Digital Mile, Zaragoza, Spain

- *City expo 2008*

- *Ecological agenda around water resource management*

- *Transportation hub*

- *Overall real estate strategy for new district for the information age*

# Towards a Typology/Typologies

What is "New" about these new century cities -- what kinds of development would  we include in this category and what wouldn't we include -- develop a list on the board, trying to frame the argument.