The campus of the future is a sustainable knowledge city

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14 universities in the Netherlands:
16 mln Dutch inhabitants
220,000 students
45,000 faculty/staff

+ 46 institutions for higher professional education ("hogescolen")

source data: 2008

http://www.managingtheuniversitycampus.nl
Dutch campus development in four stages

1. - before WW-II
   - small elite university
   - inner city model, integrated

2. - from the 50’s to 90’s
   - growth / labs
   - on the edge of the city

3. - around 2000
   - city has grown around campus
   - what to do?

4. - 21st century
   - merge campus functions with city?
   - cities in knowledge economy: ‘univer-cities’

Source: Managing the university campus (Den Heijer, 2010 forthcoming)
University campus in 2011

Decreasing public funding
Ageing campus (technically and functionally)
More than 50% of floor area is from 1960s and 1970s

Low occupancy and frequency rates
Sustainable campus → "greening the campus"
Increasing costs of campus
Expanding campus → city

Current replacement costs (new projects)
range: 500 to 4000 euro / m² gfa (price level October 2009)

Problems internationally shared

Campus management is about four different perspectives

Source: Managing the university campus (Den Heijer, 2010 forthcoming)
Adding value – reasons for campus decisions

Strategic
- accommodate growth
- support image
- stimulate collaboration
- stimulate innovation

Financial
- increase value
- reduce costs

Physical
- control risks
- reduce footprint

Functional
- better support user
- increase customer satisfaction
- add more quality

Source: Managing the university campus (Den Heijer, 2010 forthcoming)

performance criteria university

competitive advantage

profitability

strategic goals to support, quality ambitions

financial costs, benefits, value

users, satisfaction, mix of functions / spaces functional

campus management

productivity

sustainable development

April 11, 2011
Appendix I

Dutch university campuses

- EUR: Erasmus University Rotterdam
- LEI: Leiden University
- OG: Open Universiteit
- RU: Radboud University Nijmegen
- RUG: University of Groningen
- TUD: Delft University of Technology
- TUE: Eindhoven University of Technology
- UM: Nijmegen University
- UT: University of Twente
- UU: Utrecht University
- VU: Vrije University Amsterdam
- VUW: Wageningen University

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<thead>
<tr>
<th>Campus</th>
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http://www.managingtheuniversitycampus.nl
Campus of the future:

**model A – traditional university**
- exclusiveness, elite & large
- can we still afford this?

Campus of the future:

**model B – network university**
- "campus is market place of knowledge"
- sharing the campus
- ‘univer-city’
Campus of the future:  
**model C – virtual university**  
work where you want

Campus of the future:  
**model D – University College**  
small, broad, Bachelor in  
English, selected talent
Extra project BK city
BRIEF – campus of the future

http://www.managingtheuniversitycampus.nl
Academic: education & research

functions

ACADEMIC • EDUCATION & RESEARCH
- class rooms and studio spaces (small groups)
- lecture halls (large groups)
- office space faculty
- laboratories
- office space support staff
- study places for individual use / small groups
- library
- special places for ceremonies (graduation)
- special conference facilities
- special educational facilities (dance, media, arts)
- academic hospital
- medical school

Campus of the future:
- changing the academic workplace
Campus of the future:
- transparency of processes
  to inspire and learn from each other
Campus of the future:
- sustainable solutions
- CO$_2$ neutral campus
(photo: Wageningen)

Campus of the future:
- sharing laboratories and other expensive facilities
### Residential
- Student housing / national
- Student housing / international - short stay
- Alumni housing / young potentials, creative class
- Faculty housing
- Housing for support staff
- Hotel facilities
- Short stay apartments for visiting professors

### Retail & Leisure
- Sport facilities
- Bookstores
- Coffee bars
- Student associations and societies / fraternities
- Restaurants (lunch)
- Restaurants (dinner)
- Bars
- Theaters
- Jazz / clubs
- Cultural centre
- Dry cleaning, day care centre, supermarkets

Campus of the future: student & faculty housing
Campus of the future:
- creating the place to meet

(photo: Delft)

Students in HEIs in Dutch cities: changes in the period 2005 – 2009

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Campus of the future:
- intensive and flexible use of high quality facilities
Campus of the future:
- more quality, less quantity
- new life for old buildings
(photo: Maastricht)
Four scenarios for the Netherlands of 2040

- Scattering
  - Equitarian Ecologies
  - Talent Towns
- Specialisation
  - Metropolitan Markets
  - Cosmopolitan Centres
- Generalisation
  - Concentration

Source: Centraal Planbureau / CPB 2010
Campussen of clusters

Campus of the future: “univer-city”

(photo Groningen)

http://www.managingtheuniversitycampus.nl
Campus of the future: univer-city
- building a knowledge city
- competitive advantage of city for university / university for city

Source: Managing the university campus (Den Heijer, 2010 forthcoming)

Model for knowledge city

The foundations and activities of a knowledge city (Van den Berg, Pol et al. 2005)
2011: “To share or not to be…”

ORGANISATIONAL LEVELS / potential partners for shared use, management and/or ownership

- global
- continental
- national
- regional
- local
- university
- faculty
- department
- section
- individual

PHYSICAL SCALES / resources to accommodate the required campus functions

ACADEMIC FUNCTIONS - EDUCATION & RESEARCH

RESIDENTIAL FUNCTIONS

RETAIL & LEISURE FUNCTIONS

RELATED BUSINESS FUNCTIONS

INFRASTRUCTURE FUNCTIONS

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campus is network of functions

region: Den Haag
Delft
Rotterdam

network of campus functions

source map: Daan Zandbelt
Campus of the future

1. univer-city: exclusive use, shared use or virtual campus
2. univer-city: attracting and facilitating knowledge worker
3. importance of housing + quality of city life
to attract knowledge worker, to attract businesses
4. more quality, less quantity of space
5. new life for old buildings
6. intensive and flexible use of high quality facilities
7. supporting the image of faculties and university
8. home away from home: community building
9. creating the place to meet
10. sharing space is contributing to sustainable campus

Future of the campus

Future of the knowledge city

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Proposition:
The campus of the future is a sustainable knowledge city
designed & managed for shared use and ownership

http://www.managingtheuniversitycampus.nl
CAMPUS propositions

The campus of the future is a city
The city of the future is a knowledge city

Designing the campus of the future:

1. new life for 'intellectual heritage' with emotional value
2. public space (inside and outside buildings)
3. concepts for intensive, flexible, sustainable use
4. transformation, renovation, re-use
5. residential, retail & leisure functions for international community