Campus of the future
models and sustainable choices

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visit Hochschule Bochum (Delft)
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CONTENT

1. Vision on managing the university campus (THEORY)
2. Trends that shape the campus of the future (PRACTICE)
3. Three future models for university & campus (STRATEGIES)

“If you think education is expensive, try ignorance”

Derek Bok, former Harvard president

I used this quote in the first sentence of my book

my analogy: “If you think the campus is expensive, try neglecting it”

proposition (PhD defence)

Each university goal can be frustrated by the physical campus

Jedes Hochschulziel kann durch die baulichen Gegebenheiten des Campus konterkariert werden.
Managing the university campus

Performance criteria university

1. Invest in campus → high capital costs → at cost of resources education & research
2. Neglect backlog maintenance → productivity loss → lower profitability → lower rank

Impact of campus on "financial sustainability"

Competitive advantage
Profitability
Productivity
Sustainable development

Campus decision

Focus on university
Focus on real estate

Policy makers
Controllers
Users
Controllers

Managing the university campus

Campus management is about four different perspectives

Strategic

Financial

Functional

Physical

Financial

Strategic

Policy makers

Users

Technical managers

Campus area in 2011

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

Low occupancy and frequency rates
Increasing costs of campus
Expanding campus → city

Source: Den Heijer 2011 – Investment costs from 500 to 4000 euro / m2 gross floor area

Source: Den Heijer 2011 – Managing the university campus (Den Heijer, 2011)
Problems internationally shared

Managing the European campus
country profiles

Example: France

1. 84 universities
2. more autonomy for universities (LRU, 2007)
3. Opération Campus: 5 billion euro in 12 campuses
4. estimated 30% of all university buildings is in (very) bad condition
5. goal is to create ‘centres d’excellence’ to compete internationally
6. financial injection represents only 1% of annual resources
7. case Paris:
   - stimulate collaboration between 8 Paris universities
   - invest in student housing: add >12,000 units
   - use synergy university-city: ‘univer-city’
8. extra money for 9 more universities (260 million to share)

CONTENT

1. Vision on managing the university campus (THEORY)
2. Trends that shape the campus of the future (PRACTICE)
Campus of the future:
- sustainable solutions
- CO$_2$ neutral campus
- less m2, more quality

(photo: Wageningen)

Campus of the future:
- intensive and flexible use
of high-quality facilities

(BK city, Delft)

Campus of the future:
- sharing laboratories and
other expensive facilities

(photo: W.A. Amsterdam)

Campus of the future:
- changing the academic workplace

Stimulate social interaction
& intellectual interaction
Campus of the future:
- transparency of processes
to inspire and learn from each other

Campus of the future:
- transparency of processes:
to support image of faculties and university

Campus of the future:
- transparency, shared facilities

Campus of the future:
student & faculty housing

image: DUWO

Community building

photos: DUWO

http://managingtheuniversitycampus.nl
Private → Public space

Campus of the future:
- more quality, less quantity
- new life for old buildings
- increase benefits / m² to cover high maintenance cost / m²
- users accept more defects of meaningful, historic buildings

Reducing m², but improving...
Quality of place (interior design)

Reducing m², but improving...
Quality of place (cultural heritage)
Reducing m2, but improving...
Quality of life (campus & city)

Proposition (PhD defence)
The campus of the future is a city
Der Campus der Zukunft ist eine Stadt.

FUNCTION MIX – campus of the future

2011: “To share or not to be…”

<table>
<thead>
<tr>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
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</tr>
</tbody>
</table>
Model A: “Traditional university”

- traditional, classical university, academic rituals
- condition for opportunities: selection, exclusive, elite
- same m2
- same resources, healthy, safe workplace
- no facility sharing: exclusive use for university
- opportunity for more resources: higher tuition & alumni funding

Model B: “Network university”

- more institutions thoroughly mixed with urban fabric continued infusing in the urban domain with all campus space types (academic, housing, leisure etc.)
- focus on university-industry-community collaboration
- same space demand, more facility sharing
- sharing resources → more quality for all stakeholders

Model C: “Virtual university”

- the physical campus is an inspiring meeting place: “creative, stimulating and a focus on intellectual and social exchange”
- virtual “back office”, vital very modern state-of-the art “front office” university
- m2: less (clicks replace part of the m2)
- same resources available for less m2 → higher quality
Campus of the future: model C – virtual university
work where you want

<table>
<thead>
<tr>
<th>Model A</th>
<th>Model B</th>
<th>Model C</th>
<th>Model A (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional university (= reference model)</td>
<td>Network university</td>
<td>Virtual university</td>
<td>University college</td>
</tr>
<tr>
<td>m2</td>
<td>same m2</td>
<td>much less m2</td>
<td>less m2</td>
</tr>
<tr>
<td>users</td>
<td>more users</td>
<td>more users</td>
<td>less users</td>
</tr>
<tr>
<td>euros</td>
<td>more euros (from more users)</td>
<td>more euros available (for less m2)</td>
<td>more euros available (higher added value)</td>
</tr>
<tr>
<td>quality per m2</td>
<td>higher quality</td>
<td>higher quality</td>
<td>higher quality</td>
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Managing the university campus →
Managing the European campus

What’s next?
Sharing knowledge in European network
- generate collective data & tools to support policy makers
- many countries have informal or professional organisations to share management information, for instance:
  - HIS
  - Akademiska Hus
  - HEFCE / AUDE
  - 'HOI'
- collect and compare strategic – financial – functional – physical management information for campus decisions

Role European University Association EUA
- putting campus (management) on the strategic agenda
- gathering data in European network
- use ‘crowd sourcing’ and ‘crowd funding’ (EU universities)
- to generate collective management information
- compare campus management models (campus ownership)
- result: publications / benchmarks / tools

CONCLUSIONS
1. THEORY
   - managing the campus is complex task
   - affects all university performance criteria
2. PRACTICE
   - trends are international
   - “to share or not to be”
3. MODELS
   - align university & campus strategy
   - combining traditional, network & virtual campus
- Share information in European (EUA) network

Supporting campus decisions of EUA members
Follow me on Twitter: @alexandra_dh

More about the book “Managing the university campus”: 
http://managingtheuniversitycampus.nl