Managing the university campus
benchmarking European cases:
from academic workplace to science park

Dr. ir. Alexandra den Heijer
associate professor Faculty of Architecture,
Delft University of Technology (TU Delft), Netherlands

since 2000:
“crowd sourced by all Dutch universities”

http://www.managingtheuniversitycampus.nl/
downloads
Managing the university campus →
Managing the European campus

- book since 2011 academic bestseller (> 1700 copies + eBooks)
- since then exploring the “European campus” (lobbying in Brussels)
- putting campus management on the education, research & innovation agenda
- gathering data in European network

→ supporting campus decisions of EU universities

- European campus as an enabler for Europe 2020
- European campus as a disabler for Europe 2020

PHYSICAL definition of “campus”

the “campus” is defined as the (collection of) buildings and land, used for university or university-related functions

http://www.managingtheuniversitycampus.nl/
downloads
FUNCTIONAL definition of “campus”

- **ACADEMIC**
  classrooms, library, offices, laboratories, lecture halls, ...

- **RESIDENTIAL**
  student housing, hotels, ...

- **RELATED BUSINESS**
  start-ups, incubators, industry, ...

- **RETAIL & LEISURE**
  sports, restaurants, cafes, ...

- **INFRASTRUCTURE**

3 levels case studies:
physical infrastructure in the knowledge economy

**KNOWLEDGE CITY / SCIENCE PARKS:** required facilities and space for knowledge networks (university-industry-government)
Curvelo Magdaniel ➔ comparing technology campuses in cities

**CAMPUS / BUILDINGS:** required facilities and space for universities and other educational institutions
Den Heijer ➔ benchmarking university campuses in European countries

**PLACE TO WORK / LEARN:** required facilities and space for individual knowledge workers – what encourages innovation?
Bentinck ➔ assessing places of interaction

http://www.managingtheuniversitycampus.nl/
downloads
Assessing 60 university projects: trends, facts & figures

http://www.managingtheuniversitycampus.nl/downloads
Assessing 14 university campuses: trends, facts & figures

Benchmarking 40 technology campuses

more info: PhD researcher Flavia Curvelo Magdaniel – see http://managingtheuniversitycampus.nl
Assessing 28 EU member states: 14 so far

The European campus is a key asset in “the Battle for Brains”

for global competition in attracting talent
for productivity – quantity and quality of output
for profitability – most effective way to spend budget
for sustainable development – CO₂ emission + m² / user
The European campus is a key asset in “the (global) Battle for Brains”

European campus as an enabler for Europe 2020

European campus as a disabler for Europe 2020
The European campus is a key asset in “the (global) Battle for Brains”

*European campus as an enabler for Europe 2020*

+ Universities as economic growth engines: “place matters”

http://www.managingtheuniversitycampus.nl/downloads
The European campus is a key asset in “the (global) Battle for Brains”

European campus as an enabler for Europe 2020

+ European “univer-cities” are considered attractive places to live, work, be...

http://www.managingtheuniversitycampus.nl/downloads
The campus of the future is a city
The city of the future is a campus (univer-city)

1. use heritage for branding – *students* become tourists
2. reduce the footprint – *densely populated areas contribute to innovation*
3. less private, more public use of space – *showcase, open, 24/7 access*
4. ‘urban meeting rooms’ – *to merge urban and university communities*
5. regional alignment – *planning in a public-private network*

The European campus is a key asset in "the (global) Battle for Brains"

*European campus as a disabler for Europe 2020*

- 50% or more, from 1960s/70s, in bad functional / technical state: reinvestments required
Technical condition campus

**Netherlands**

- Physical condition: 37% * 4.4 mln = 1.7 mln

**France**

- Total Built Surfaces GFA: 18.600.000 m²
- Owned by the state: 82%
- Land: 5.950 ha

University Real Estate Condition

Required intervention expressed as a % of replacement cost: 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%

<table>
<thead>
<tr>
<th>Grade</th>
<th>% of m²</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>37%</td>
</tr>
<tr>
<td>B</td>
<td>32%</td>
</tr>
<tr>
<td>C</td>
<td>21%</td>
</tr>
<tr>
<td>D</td>
<td>10%</td>
</tr>
<tr>
<td>E</td>
<td>4%</td>
</tr>
</tbody>
</table>

Project costs: € 500 - € 4000 / m² gross floor area (price level 2011)

http://www.managingtheuniversitycampus.nl/
downloads
The European campus is a key asset in “the (global) Battle forBrains”

*European campus as a disabler for Europe 2020*

- Low utilization rates: high vacancy rates of offices, laboratories, classrooms

---

**Dutch campuses**

- Office: 33%
- Education: 16%
- Restaurant: 4%
- Support: 10%
- Special storage: 2%
- Storage: 10%
- Residential: 1%
- Sanitary: 3%
- Specific, incl. laboratories: 21%

---

http://www.managingtheuniversitycampus.nl/downloads
The European campus is a key asset in “the (global) Battle for Brains”

**European campus as a disabler for Europe 2020**

- Campus as 10-15% of total costs, negatively affects “financial sustainability” of universities

The European campus is a key asset in “the (global) Battle for Brains”

**European campus as an enabler for Europe 2020**

1. Universities as economic growth engines: “place matters”
2. Europe’s knowledge economy accommodated in cultural heritage buildings
3. European “univer-cities” are considered attractive places to live, work, be...

**European campus as a disabler for Europe 2020**

1. > 50% from 1960s/70s
2. bad functional / technical state: reinvestments required
3. low utilization rates: high vacancy rates of offices, laboratories, classrooms
4. campus 10-15% of total costs
5. negatively affects “financial sustainability” of universities
Not enough resources: sharing is the only option...
“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

**Assessing Campus Strategies**
→ Spend University Resources Effectively

- **Competitive Advantage**
  - Ranking
  - Market Share

- **University Campus Stress Test**
  - Assessing technical state
  - Footprint / User
  - Shared use versus territory
  - Benefits / m²
  - Costs / m²
  - Costs campus / Total costs
  - Branding the university
  - Use of academic heritage

- **Profitability**
  - Financial Resources (€)

- **Productivity**
  - Quality & Quantity Output

- **Sustainable Development**
  - Resources (m² - CO₂)

---

http://www.managingtheuniversitycampus.nl/
downloads
**Share knowledge in European network of universities / campus organisations**

- EUA (all European universities)
- OECD / Centre for Educational Learning Environments (CELE)

national / regional networks*:
HOI (NL), AUDE (UK), NUAS (Nordic countries), HIS (Germany), Academiska Hus (Sweden), BiG (Austria), Aaltonet, Hykoy, Kykoy (Finland), ...

* the selection is based on existing contacts for the research project “Managing the university campus”

---

**What’s next?**

1. TU Delft and EUA (European University Association) will organise a seminar “The European campus as an asset in the global battle for brains” (May 26-27, 2014).

2. Next publication: “The European campus – heritage and challenges” (part 1 – country profiles), to be launched at the 2014 seminar.

3. Exploring a campus stress test (with DG Research & Innovation): PhD research

4. Researching the European campus: multidisciplinary research – from regional economy and urban planning, to spaces that encourage innovation.

→ supporting campus decisions of EU universities – to achieve goals in education, research and knowledge transfer

---

http://www.managingtheuniversitycampus.nl/
downloads
research team Real Estate & Housing, TU Delft
chair Real Estate (prof. Hans de Jonge)

**European campus**
- collectieve uitdagingen en strategische keuzes (Van den Berg, Den Heijer, Tzovlas)
- technology campuses – 39 cases wereldwijd (Curvelo)
- campusinnovatie (Bentinck)

**Campus management**
- decision-support tools, “campus stress test” (De Jonge, Arkesteijn, Den Heijer)
- kenniscentrum campusmanagement, benchmarking (Den Heijer, Stokkers)
- preference-based decision making (Arkesteijn, Binnenkamp, Valks)

“De Europese campus als de enabler/disabler van EU2020” (lobby Brussel)

“Hoe de campusbeslissingen van universiteiten te ondersteunen?”

Follow me on Twitter: @alexandra_dh

Hand-out presentation + more info about all research projects: 
http://managingtheuniversitycampus.nl/
DOWNLOADS