Der Campus der Zukunft ist eine Stadt
Management der Campusentwicklung

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

PROPOSITIONS
1. Students become tourists – Cherish the European academic heritage
2. The European campus is an enabler – or disabler – for Europe 2020
3. Campus planning is collective task of universities & cities

PHYSICAL definition of “campus”

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

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, cafés, ...
• INFRASTRUCTURE

PROGRAMM für den Campus der Zukunft

• AKADEMISCH
  Klassenzimmer, Büros, Hörsäle
  Laboratorien, Bibliothek, ...
• WOHNEN
  Studentenwohnungen, Hotels, ...
• UNTERNEHMEN
  neue Unternehmen, Industry, ...
• FREIZEITANGEBOT
  Sport, Kultur, Kaffee, ...
• INFRASTRUKTUR

http://
www.managingtheuniversitycampus.nl
PROBLEM STATEMENT "Konkurrenz"

The campus competes with the city – “new town development”

---

PROPOSITIONS

1. Students become tourists – Cherish the European academic heritage
   - location in inner city
   - heritage buildings: culture & industry (z.B. AEG)
   - density of people
   - good public space
   - sense of place
   "this could NOT be anywhere"

---

Why study abroad? Reasons (not) to go

<table>
<thead>
<tr>
<th>reasons to go</th>
<th>reasons not to go</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. academic reputation</td>
<td>1. academic reputation</td>
</tr>
<tr>
<td>- professors, programme, teaching method, rankings</td>
<td>- English language skills of staff, workload</td>
</tr>
<tr>
<td>2. country / city / culture</td>
<td>2. city / culture</td>
</tr>
<tr>
<td>- employability, learning the language, personal/intercultural relations</td>
<td>- lack of integration</td>
</tr>
<tr>
<td>3. career development</td>
<td>3. social life</td>
</tr>
<tr>
<td>- employability, learning the language, personal/intercultural relations</td>
<td>- lack of organised events</td>
</tr>
<tr>
<td>4. university services</td>
<td>4. university services</td>
</tr>
<tr>
<td>- quality of life, friends, love</td>
<td>-</td>
</tr>
</tbody>
</table>

---

European Union
28 member states in 2014

Challenges are the same in many countries...
How to use cultural and industrial heritage

---

http://www.managingtheuniversitycampus.nl
Campus more important than we think...

UK research (HEDQF 2012) showed that 1/3 of all students admit to have rejected a university based on (the poor quality* of) the physical environment.

*That does not necessarily mean “buildings in bad condition”, but could also refer to an isolated campus or lack of social space.

Paradox:
- activities become more place-independent
- students & professors have choice
- ‘quality of place’ is more important than ever

if talent can go anywhere, why would they come to your city/campus?

“attract talent with quality of life”

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

Ein guter Gebäudebestand (Arbeits- und Lernumfeld) ist attraktiv für Talente
ein schlechter kann sie abschrecken.

proposition (PhD defence)
Each university goal can be frustrated by the physical campus

Jedes Ziel einer Hochschule oder Universität kann durch die baulichen Gegebenheiten des Campus konterkariert werden.

PROPOSITIONS
1. Students become tourists – Cherish the European academic heritage
2. The European campus is an enabler – or disabler – for Europe 2020
   • goals for regional economy can be frustrated by “unattractive places to work, live, spent free time”
   • even European goals for the knowledge economy could be affected by “the wrong campus strategy”
Europe 2020

“Smart, sustainable, inclusive Europe” – European Commission

Europe 2020 puts forward three mutually reinforcing priorities:

- Smart growth: developing an economy based on knowledge and innovation, very dependent on availability of talent
- Sustainable growth: promoting a more resource-efficient, greener and more competitive economy.
- Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.

“What is the current state of the European Campus?”

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

The Campus as an enabler

Universities as growth engines – place matters.

Radical change working population in OECD countries

Urban economy more dependent on universities

http://www.managingtheuniversitycampus.nl
Universities as urban growth engines

- Where technology campuses are located, innovation takes place
- Relation economic growth and presence (top-ranked) university

European knowledge economy accommodated in cultural heritage buildings.

History of the campus and the city

1. 1800 - zwischen 1800 und 1890
   - Campus = Stadt

2. 1900 - zwischen 1890 und 1990
   - viel mehr Studierende, Sicherheit Labs
   - Campus neben der Stadt

3. 2000 - größere Stadt umgeb Campus
   - What's next?

4. 21st Jahrhundert – neue Möglichkeiten
   - (a) integrieren Campus und Stadt?
   - (b) Campus wie ein neue Stadt?

Quellen: Managing the university campus (Den Heijer, 2011)

Performance Indicators City + Campus models

- Humboldt university 200 years ago
- buildings

source: Flavia Curvelo Magdaniel, PhD research "Technology campuses in cities"
The Campus as an enabler

European univer-cities considered attractive places to live, work, be.

The Campus as a disabler

More than half of the university buildings from 1960s-1970s, in bad technical & functional state.

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

From literature: what generates innovation?

1. Interaction
   - between academic ‘acquaintances’ from different scientific backgrounds
   - is better than ‘academic friends’ or ‘academic family’ (analogy: genetics)
2. Serendipity as innovation motor
   - new ideas by accident, unplanned interaction
3. The physical presence of people is essential to universities – ‘meeting of minds’
4. "No clicks without bricks" – no world-class university can be entirely virtual
5. Informal meetings: build trust (biology matters)
   - (espresso) bars, public space, social media contribute to that
6. Importance of place attachment → 2nd home for international community
   - ‘feeling at home’ will make knowledge workers stay (1st house, 1st child)

http://www.managingtheuniversitycampus.nl
Performance Indicators: Sustainability of the campus

Energy efficiency of British university real estate, in DEC labels

- Academic GFA
- Residential GFA

The Campus as a disabler

Campus costs about 5% to 15% of university budget, affecting their financial sustainability.

PROPOSITIONS

1. Students become tourists – Cherish the European academic heritage
2. The European campus is an enabler – or disabler – for Europe 2020
3. Campus planning is collective task of universities & cities

The campus of the future is a city

Der Campus der Zukunft ist eine Stadt.
the campus of the future
"models for campus - city"

60s/70s campus
residential campus
science park
campus = city
business park

medieval campus

Campus der Zukunft:
- flexible akademische Arbeitsplatz
  → < 20% Arbeitsplätze benutzt jeden Tag

http://www.managingtheuniversitycampus.nl
Campus der Zukunft:
- intensive and flexible use of high quality facilities

stimulate social interaction & intellectual interaction

students and academic staff sharing workspace → reducing the footprint, improving interaction

Hierarchy of needs

inspiring
attractive
social
safe
healthy

Maslov (translated for) learning and working environment


privates / persönliches Territorium → öffentlicher Raum
Campus der Zukunft:  
- begegnungsraum / öffentlicher Raum

Ziel: "Community building"

http://www.managingtheuniversitycampus.nl
Feasibility Retail & Leisure versus under-utilization ("Unternutzung")

extreme differences in use
- during the day
- during the week
- during the semester
- during the year

⇒ pop-up retail + cafes + restaurants

RELATIEd BUSINEss
- akademische start-ups
- Maastricht campus (academic spin-off)
- start-up businesses (service spin-off)
- business who combine learning/working
  "broad place" / breeding places artists

INFRASTRUCTURE
- parking space
- transport on campus (trolleys)
- accessibility by car
- accessibility by public transport

PROPOSITIONS
1. Students become tourists – Cherish the European academic heritage
2. The European campus is an enabler – or disabler – for Europe 2020
3. Campus planning is collective task of universities & cities

Campus der Zukunft:
- mehr Qualität, weniger Quantität
- neues Leben für altes Gebäude

(photo: Maastricht)

http://www.managingtheuniversitycampus.nl
PROBLEM STATEMENT "Konkurrenz"
The campus competes with the city – "new town development"

PREFERRED MODEL
Network university → "Univer-City"

the campus of the future
"models for campus - city"

Preferred model: “Network university”
- more institutions thoroughly mixed with urban fabric continued infusing in the urban domain with all campus space types (academic, housing, leisure etc.)
- (re)use heritage buildings
- focus on university-industry-community collaboration
- reduce footprint, shared use: increase density of people
- sharing resources → more quality for all stakeholders

(die Anforderungen an) das Gebäudeprogramm der Univer-city: "To share or not to be..." ("Teilen oder verschwinden")

Der Campus ist ein Netzwerk
The city of the future is a campus

WissenStadt: Die Stadt der Zukunft ist einen Campus.

Der Campus der Zukunft ist eine Stadt
Die Stadt der Zukunft ist einen 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

* and other knowledge workers

Propositions

Der Campus der Zukunft ist eine nachhaltige Wissensstadt
tworfen und verwaltet für geteilte Nutzung und geteiltes Eigentum
⇒ es gibt (viel) mehr zu gewinnen als zu verlieren

Campus of the future is a sustainable knowledge city
designed & managed for shared use and ownership
⇒ there is (much) more to gain than to loose

http://www.managingtheuniversitycampus.nl