Practise what you preach
BK City as a test case for international trends

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

CONTENT

Lessons for / from BK city

BK city is "new old" building of the Faculty of Architecture, after the fire in 2008

http://www.managingtheuniversitycampus.nl
Emergency management

< 3 days after the fire
2008

relocate >3000 students
> 800 staff members
in < 6 months

use the opportunity
of a crisis:
implement
radical changes

irony: ultimate
case study for research

ASSIGNMENT: relocate 3300 students and > 800 employees
DEADLINE: renovate 32.000 m² < 6 months
+ new construction 4.000 m² < next 6 months
DASFrame – “always be prepared for a crisis”

1. Determine current match
2.1 Explore changing demand
2.2 Determine future match
3. Weigh and select alternatives
4. Step by step plan
5. Define projects to transform

(task 1: assessing &the &current &campus

(task 2: exploring &changing &demand

(task 3: generating &future &models

(task 4: defining &projects &to &transform

(de Jonge et al 2009 & den Heijer 2011)

http://www.managingtheuniversitycampus.nl
Aansluiting & op de stad

Challenge the future
Delft University of Technology

dean
construction
professor + project leader
facilities manager
procurement
project managers

architect
communication

controller

ICT

academic + program

www.managingtheuniversitycampus.nl
Found a ‘new’ building within 10 days

source photo: Municipality of Delft, 1925

sustainable = re-use

Facts

150 participating companies
25 consultancy / architecture firms
350 construction workers on site
800 orders
15 km sprinkler / 5500 sprinklers
30,000 litres paint
220 km data cables
5200 wall outlets
Undergraduates < 4 months after fire
Project ready < 1 year

Phase 1 - EAST:
16,000 m² gfa
in use September 2008

Phase 2 - WEST:
16,000 m² gfa
in use November 2008

Phase 3 - GLASS HOUSES:
4,000 m² gfa new
in use May 2009

TU Delft - Faculty of Architecture and the Built Environment

Architecture (A) – Urbanism (U) – Architectural Engineering + Technology (AE+T) – Real Estate & Housing (RE&H)

→ chair Real Estate Management

http://
www.managingtheuniversitycampus.nl
LESSONS

#1

Design the building – and campus – as a city: keep the best places public, intensify use, create density of people

Design the building as a city

important are:
- density of people
- acknowledge # visitors
- keep best places public
- orientation, logical floorplan
- sense of place: heritage
- branding: showroom, legacy

http://www.managingtheuniversitycampus.nl
Public space:
design a building like in a city

Private → Public space
Contextual Concept: Connectivity and variety

GOALS ORGANISATION
1. Community building
2. More effective support of education, research & management
3. Creating the place to meet
4. Stimulate social interaction & intellectual interaction
5. Flexible use of facilities
6. Sustainable

http://www.managingtheuniversitycampus.nl
LESSONS

#2

Reduce m2 - trade quantity for quality of space

http://www.managingtheuniversitycampus.nl
Transition from old to new
less BVO (gfa), more NO (ufa)

<table>
<thead>
<tr>
<th>functions</th>
<th>Berlageweg</th>
<th>Julianalaan</th>
<th>Julianalaan / Berlageweg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. studio space</td>
<td>5,680</td>
<td>7,840</td>
<td>+ 38% student back at the faculty</td>
</tr>
<tr>
<td>2. office space</td>
<td>6,300</td>
<td>6,340</td>
<td>+ 1% but other concept</td>
</tr>
<tr>
<td>3. lecture halls</td>
<td>1,090</td>
<td>1,110</td>
<td>+ 2% and same capacity</td>
</tr>
<tr>
<td>4. library</td>
<td>650</td>
<td>870</td>
<td>+ 34% with more places to study</td>
</tr>
<tr>
<td>5. educ. facilities</td>
<td>3,580</td>
<td>3,250</td>
<td>- 9% more sharing, better use</td>
</tr>
<tr>
<td>6. laboratories</td>
<td>860</td>
<td>660</td>
<td>- 23% more sharing at TU level</td>
</tr>
<tr>
<td>7. conference</td>
<td>1,100</td>
<td>770</td>
<td>- 30% more sharing at TU level</td>
</tr>
<tr>
<td>8. restaurants</td>
<td>380</td>
<td>690</td>
<td>+ 82% multi-functional use</td>
</tr>
<tr>
<td>9. public functions</td>
<td>1,220</td>
<td>2,050</td>
<td>+ 68% more places to meet</td>
</tr>
<tr>
<td>10. storage</td>
<td>3,300</td>
<td>1,240</td>
<td>- 62% (start with) less after fire</td>
</tr>
<tr>
<td>total (usable)</td>
<td>24,160</td>
<td>24,820</td>
<td>+ 3% more usable space</td>
</tr>
</tbody>
</table>

http://www.managingtheuniversitycampus.nl
in 2013 weer 17 nieuwe projecten

• meer grip op kengetallen zoals “het nieuwe werken bij de universiteit”

• een “kaartenbak van 60 projecten”

• meer inzicht in investeringskosten gekoppeld aan omvang, kwaliteitsniveau, functiemix, ...

• zie hoofdstuk 7 van boek voor overzichten...

Extra project BK city

http://www.managingtheuniversitycampus.nl
Dutch references – new academic workplace

m² usable floor area / workplace

- EUR-1: 11.7
- UM-2: 10.5
- UT-2: 10.3
- RUG-5: 10.2
- RUG-4: 9.4
- UT-3: 8.1
- TUE-3: 8.9
- VU-2: 7.7

http://www.managingtheuniversitycampus.nl
## BK city – strategische keuzes

<table>
<thead>
<tr>
<th>Accommodate</th>
<th>accommodate</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;exclusive&quot; and &quot;closed&quot;</td>
<td>&quot;shared&quot; and &quot;open&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low % of resources spent on the campus</th>
<th>High % of resources spent on the campus</th>
</tr>
</thead>
<tbody>
<tr>
<td>only public funding</td>
<td>allow private funding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low space use per student or employee</th>
<th>High space use per student or employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>focus on individual needs</td>
<td>focus on collective needs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accept % buildings in bad condition</th>
<th>All buildings at least reasonable condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small(er) ecological footprint</td>
<td>Large(r) ecological footprint</td>
</tr>
</tbody>
</table>

## ingevuld voor BK city

### Strategisch
- "Community building"
- Meer samenwerking, student terug op faculteit

### Financieel
- 50 miljoen geïnvesteerd
- Exploitatielasten...

### Operationeel
- 3300 studenten
- 800 medewerkers
- 10 ruimtefuncties

### Fysiek
- Redelijke technische conditie

http://www.managingtheuniversitycampus.nl
Hierarchy of needs

Maslov (translated for) learning and working environment

inspiring
attractive
social
safe
healthy


http://www.managingtheuniversitycampus.nl
http://www.managingtheuniversitycampus.nl
LESSONS

#3

*Invest in visible quality – “window dressing” / “distractions”*
Reducing m2, but improving...
Quality of place (interior design)


LESSONS

#4

Embrace academic history – use heritage for branding

http://www.managingtheuniversitycampus.nl
Reducing m2, but improving...
Quality of place (cultural heritage)

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

http://www.managingtheuniversitycampus.nl
Campus of the future:
- more quality, less quantity
- new life for old buildings
(photo: Maastricht)
“Online students can’t help being sociable” (April 9, 2014)

It was a revolution moving higher education from bricks to clicks... and now it’s started to go back to bricks again.

Online university providers, which offered people the chance to study from home, are turning full circle by creating a network of learning centres where students can meet and study together.

Instead of demolishing the dusty old classrooms of academia, the online university revolution is responsible for opening some new ones.

Coursera, a major California-based provider of online courses, is creating an international network of “learning hubs”, where students can follow these virtual courses in real-life, bricks and mortar settings.

They’re scheduled and arranged online, with the only vital ingredients being a laptop, wi-fi and somewhere to talk.

“The typical completion rate for a MOOC is about 5% to 10%.

For MOOC students (“Moocers”) attending learning hubs, the completion rates are between 30% and 100%.”

Source: Coursera (7 mln students)

LESSONS

#5

Avoid individual territory (“no names on the door”)

http://
www.managingtheuniversitycampus.nl
“Cellular office symbolic for cellular research”

"on a busy day: less than 20% of the desks is occupied”

source: various utilization studies

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decreasing / changing demand (less students, different research)
real versus planned use ("booked but empty")

dysfunctional buildings (technical state, comfort / energy use, fitness for use)
territorial culture: no tendency to share space

energy-inefficient unsustainable

resource-inefficient

low occupancy rates underutilization of space

negative effect on "density of people"
→ (-) community
→ (-) proximity
→ (-) serendipity
→ (-) innovation

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cost / m² > benefits / m²

http://www.managingtheuniversitycampus.nl
Campus of the future:
- changing the academic workplace
  → space use < 20% of workplaces used

LESSONS

#6

Implement flexible concepts – mixed use – but avoid standardization and “open plan”

http://www.managingtheuniversitycampus.nl
Changing the academic office

Estates Director:

“Everybody is always complaining about the overhead-%, but at the same time they will claim an individual office – like accommodation is not adding to the overhead”
Office space

- no individual territory
- 12 m2 usable per fte
  \( \rightarrow \) became more after design process
- activity related concept
  a. SILENT ROOMS
  b. LIVING ROOMS
  c. MEETING ROOMS
    - formal / informal
  d. TEAM OFFICES

Library: quiet place to study

http://www.managingtheuniversitycampus.nl
Space types on campus, example NL

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

Stimulate social interaction & intellectual interaction

http://www.managingtheuniversitycampus.nl
LESSONS

#7

Make it feel like home – “home away from home”
LESSONS

#8

Allow students + staff to decorate their working environment
Studio space

- student back at the faculty
- 6 m2 usable per workplace
- became less after decision process

- tables are assigned to groups of students per semester (no permanent territory)
- smart use of space (by smart scheduling)

CREATE “HOME AWAY FROM HOME”
LESSONS

#9

Make it a showroom with the best products of students + staff
LESSONS

#10

Make sure people can see each other work

for security, community building, serendipity → innovation

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

http://www.managingtheuniversitycampus.nl
LESSONS

#1 Design the building – and campus – as a city
#2 Reduce m2 - trade quantity for quality of space
#3 Invest in visible quality – “window dressing” / “distractions”
#4 Embrace academic history – use heritage for branding

#5 Avoid individual territory (“no names on the door”)
#6 Implement flexible concepts – mixed use – but avoid standardization and “open plan”

#7 Make it feel like home – (“home away from home”)
#8 Allow students + staff to decorate their working environment
#9 Make it a showroom (with the best products of students + staff)
#10 Make sure people can see each other work (for security, community building, serendipity → innovation)

Follow me on Twitter:
@alexandra_dh

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

(see DOWNLOADS for hand-out)