The making of BK city @TU Delft campus

Dennis Cruyen - Alexandra den Heijer

Universities in the Netherlands

- 14 universities in the Netherlands
- 16 mln Dutch inhabitants
- 220,000 students
- 45,000 faculty/staff
- 46 institutions for higher professional education ("hogescholen")
- Source data: 2008

Dutch campus types in relation to the city

Common Issues

- Decreasing public funding
- Ageing campus (technically and functionally)
- Low occupancy/frequency rates
- Increasing costs of campus
- Sustainable campus
- Greening the campus
- Expanding campus to city

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

TU Delft 170 years!

History & Mission

- TU Delft was established in 1842 by King William II
- TU Delft is the oldest and largest University of Technology in the Netherlands

With its unique technological infrastructure, broad knowledge base, worldwide reputation and successful alumni, TU Delft is contributing significantly to the development of responsible solutions to urgent societal problems in the Netherlands and the rest of the world

more information: http://managingtheuniversitycampus.nl

28-02-13
More information: http://managingtheuniversitycampus.nl
Science Port Holland - *Technopolis*

An international science park and hot spot where high-tech knowledge and innovation can be exchanged, located in one of Europe’s most innovative regions.

Fire destroyed Architecture building
May 13, 2008

more information: http://managingtheuniversitycampus.nl
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What we started with in June 2008:

**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

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Phase 1 - EAST: 16,000 m² (in use September 2008)
Phase 2 - WEST: 16,000 m² (in use November 2009)
Phase 3 - GLASS HOUSE: 4,000 m² (new)

Undergraduates < 4 months after fire
Project ready < 1 year

42,000 m²

more information: http://managingtheuniversitycampus.nl
32,000 m²

Managing the university campus

Every project or campus can be assessed from 4 perspectives

More information: http://managingtheuniversitycampus.nl
Brief in m2

- space reduction – 25%
- more students expected
- Berlageweg was already too small for # students / staff
- need to change concepts
- demand for large public spaces “blokkenhal” & modeling studies, workshop space

- additional space demand:
- solution glasshouses
- many alternatives... by many different architects...

Design the building as 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

Campus of the future:
- sustainable solutions
- CO2 neutral campus
- less m2, more quality

more information: http://managingtheuniversitycampus.nl
Campus of the future:
- transparency, shared facilities
  (photo: VU Amsterdam)

Campus of the future:
- creating the place to meet
  (photo: Library TU Delft)

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)

more information: http://managingtheuniversitycampus.nl
Reducing m², but improving…
Quality of life (campus & city)

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>
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<tbody>
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<td>1. studio space</td>
<td>5,660</td>
<td>7,740</td>
<td>+ 39%; increased back at the faculty</td>
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<td>2. office space</td>
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<td>4. library</td>
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<td>7. conference</td>
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<td>9. public functions</td>
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<td>10. storage</td>
<td>3,300</td>
<td>1,240</td>
<td>- 62%; (start with) less after fire</td>
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Total (usable): 24,160 - 24,820 = + 3% more usable space

Transition from old to new
> 50% is studio or office space

1. Studio space
1. 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)

2. Office space

- No individual territory
- 12 m² usable per flex
  - became more after design process
- Activity related concept

More facility sharing

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More information: http://managingtheuniversitycampus.nl
3. Lecture halls
- more shared use of large halls
- more small spaces locally
- flexible floor plan
- differentiation of quality: also used for seminars / conferences

4. Library

5. Educational facilities

6. Laboratories

7. Conference rooms

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Creating the place to meet

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8. Restaurants & bars

9. Public functions

Public space, like in a city

- usable space in corridors for informal meetings and work

more information: http://managingtheuniversitycampus.nl
10. Storage

including digital storage

PRIMARY FACTS

ORGANISATION

• 1400 BSc students
• 1675 MSc students
• 450 FTE staff
• 800 employees
• 170 0.0 fte

BUILDING

• 700 BSC STUDIO DESKS
• 830 MSC STUDIO DESKS
• 470 DESKS
• 350 AVAILABLE EXTRA WORK SPACES

AND SO MUCH MORE

• 270 PARKING LOTS

44 MEETING ROOMS
5 LECTURE HALLS
1 LIBRARY
1 RESTAURANT
3 BARS

BK City Slim / BK City Stay

Transform BK City to an energy/CO2 neutral building

Activating “Campus-City” Delft

“to share or not to be”

Follow me on Twitter:
@alexandra_dh

More about case BK city & book
“Managing the university campus”:
http://managingtheuniversitycampus.nl

more information: http://managingtheuniversitycampus.nl
Questions / tour of BK City

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