The making of BK city @TU Delft campus

Alexandra den Heijer

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.

Universities in the Netherlands
TU Delft largest university of technology

- 13 NL universities
- 3 universities of technology: 3TU
- MoU with Leiden and Rotterdam
- Programmes in science, design and engineering

more information: http://managingtheuniversitycampus.nl
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

Common in the Netherlands

Challenge the future

IDEA League
Tsinghua University Beijing (China)
Kyoto University (Japan)
Osaka University (Japan)
University of Tokyo (Japan)
Bandung Institute of Technology (Indonesia)
National University of Singapore (Singapore)
The Hong Kong Polytechnic University (Hong Kong)
KAIST (South Korea)
BME - Budapest University of Technology and Economics (Hungary)
NTNU – Norwegian University of Science and Technology (Norway)
METU – Middle East Technical University (Turkey)
Moscow State University (Russia)

International Community
- 20% of new students
- 60% of PhD researchers
- NL and International Staff

Activating “Campus-City” Delft

1= housing; 2= BK-City; 3= hotel; 4= Mekelpark hotspots; 5= sports & culture

REGIONALE CONTEXT

LOKALE CONTEXT

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.

Challenge the future

Delft University of Technology

BK6050 - Vastgoedmanagement

[title of own college]

[Alexandra den Heijer]

FIRE – foto

Fire destroyed Architecture building
May 13, 2008

more information: http://managingtheuniversitycampus.nl
Emergency management
< 3 days after the fire

Dean & staff at Faculty of Applied Sciences
More information: http://managingtheuniversitycampus.nl

Found a 'new' building within 10 days

Sustainable = re-use

Project group representing
- policy makers
- board of executives
- dean
- controllers
- users
- architects that have known the faculty for years

1. professors and professionals
2. all parties have studied or worked at faculty
3. hands-on mentality

Assignment: relocate 3300 students and > 800 employees
Deadline: renovate 32,000 m² < 6 months
+ new construction 4,000 m² < next 6 months
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

Undergraduates < 4 months after fire
Project ready < 1 year

Phase 1 - EAST:
10,000 m² new in use September 2009

Phase 1 - WEST:
10,000 m² new in use November 2009

Phase 2 - GLASS HOUSES:
4,000 m² new in use May 2009

Challenge the future
Delft University of Technology

42,000 m²
Managing the university campus

Every project or campus can be assessed from 4 perspectives

32,000 m²

Performance criteria university

Each university goal can be frustrated by the physical campus

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

Campus of the future:
- creating the place to meet

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)

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

functions Berlageweg Julianalaan Julianalaan / Berlageweg
1. studio space 5,680 7,840 + 38% - 50% increased back at the faculty
2. office space 6,300 6,340 + 1% f0r other concept
3. lecture halls 1,090 1,110 + 2% and same capacity
4. library 650 870 + 34% with more places to study
5. educ. facilities 3,580 3,250 - 9% more sharing, better use
6. laboratories 860 660 - 25% more sharing at TU level
7. conference 1,100 770 - 30% more sharing at TU level
8. restaurants 380 690 + 62% multi-functional use
9. public functions 1,220 2,050 + 68% more places to meet
10. storage 3,300 1,240 - 62% (start with) less after fire

Total (usable) 24,160 24,820 + 3% more usable space

more information: http://managingtheuniversitycampus.nl
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)

More facility sharing

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2. Office space

- no individual territory
- 12 m² usable per flex
  ➔ became more after design process
- activity related concept

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

7. Conference rooms

4. Library

5. Educational facilities

6. Laboratories

more information: http://managingtheuniversitycampus.nl
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 (2009)

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

Follow me on Twitter: @alexandra_dh

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

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