Campus NL
past, present and future of the Dutch campus

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Campus NL research

All 14 Dutch research universities assessed, including TU Delft
Campus NL
Investeren in de toekomst

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In collaboration with:
VSNU

Starting date:
Dec 2015 - Dec 2016
Managing the university campus (2011)
The European Campus – heritage and challenges (2014)

Smart campus tools (2016)
Campus NL (2016)

Campuses, cities and innovation (2017)

About the books, other publications and this lecture:
www.managingtheuniversitycampus.nl

Campus Research Team (8 researchers at TU Delft)
Problem statement & goals

Problem statement Campus NL
- Increasingly there must be clear accountability for the expenditure of public money
- Universities need to justify their campus plans and investments, based on the legacy / heritage of the past and the challenges of the futures

Goals
- Generate management information for campus decision making about footprint in energy and m2, university goals to support, financial resources in euros, number of users to accommodate
Research framework
“Designing an Accommodation Strategy” (DAS)

task 1 - assessing the current campus

1. assessing the current campus
2. exploring changing demand
3. generating future models
4. defining projects to transform

1. problem statement
2. trends / university of the future
3. vision on campus of the future
4. investment & project plan

source: Managing the university campus (Den Heijer, 2011), based on (De Jonge et al. 2009)
Methodology (1)
campus of the past / present

Step 1: assessing the current campus
- using the 2006 data of Den Heijer’s dissertation as reference
- using the 2006 format and definitions to collect 2016 data, about the campus in m², university goals, financial resources in euros and number of users
- interviews to discuss and check the data
- workshops (June 3 + 24) to validate data
Methodology (2)
campus (management) of the future

Step 2: exploring changing demand
- literature review
- document analysis (strategic plans universities, campus visions)
- Interviews: additional developments?

Step 3: generating future models
- interviews: discuss ABC models, based on 2011 dissertation
- interviews: explore campus trends

Step 4: defining strategic choices
- interviews: explore campus trends
14 universities
14 interviews
>35 persons

April 25 -
May 24, 2016
2-hour interview
1-hour campus tour

20’ step 1 (current)
20’ step 2 (trends)
30’ step 3a (future)
15’ step 3b (projects)
15’ step 4 (mgt info)
Managing the university campus challenges, future models and strategic choices

1. Today’s campus problems and values
2. Campus trends innovative solutions and smart strategies
3. Strategic choices to make summarizing campus decisions for the future
1. Today’s campus strengths and weaknesses, opportunities and threats
More than half of the university buildings is from 1960s-1970s, in bad technical & functional state (and energy-inefficient).

→ in Europe 85 mln m2 needs energy-efficient transformation
→ smart, sustainable strategies required
Low utilization rates, high vacancy rates in academic offices, laboratories, classrooms. “Sometimes overcrowded, often empty.”

→ high costs for underutilized space
→ smart planning tools required (= current research project, see trends)
Campus costs about 8% to 16% of university budget – and rapidly increasing – affecting their financial sustainability.

→ Norway: 21% of university budget spent on campus (2017)
→ depends on % old buildings, % laboratories and space use
→ smart investment strategy required
Campus NL – “many more users on same m2”

22% more students,
4% more employees,
many more visitors (> dynamic)

on 4.4 million m2 in 2016,
just like in 2006

quality improvement:
from 36% to 49%
in good condition
2. Campus trends

Innovations on campus
Reinventing the past!

Reinventing the physical place as foundation of learning and revaluing academic rituals
De universiteit zit weer stampvol

Studenten studeren steeds vaker op de universiteit. "In Utrecht staan ze om een half uur rijden die voor de Universiteitsbibliotheek." Dit begrip "campus" is voor de studenten van belang. In Utrecht is de universiteit in het weekend vol, terwijl er vaker op de universiteit. Studenten studeren steeds

CA M P U S
daarvan vind. Heb jij het begrepen, wil met iemand praten over wat ik denken overleg. Voorzitter van het Interstedelijk Stu

cam pl e n
gen beschikbaarheid van voorzienin beurt weer hoge eisen aan kwaliteit onder druk. Die student stelt op zijn
tenen van de studie zetten de student beurs en hogere collegegelden of kos advies), de afschaffing van de basis hoefte aan direct contact met elkaar. Overal werken, maar ze hebben be

ken, hebben niet geleid tot minder die een virtuele campus mogelijk ma

den samenstellers. En wil zijn dan tien jaar terug

teitsgebouwen drukker dan ooit. De

studieruimte wel eens een muis langs s avonds geopend, in het weekeinde
'
s avonds. Dan komen de

het universiteitsrestaurant dicht is. Farma pizzakoeriers langs, omdat het uni

tentamen, zegt Jan Sinnige, 'Ik lees een artikel en

Thuis word ik afge

Student

Maarten Huygen

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De tentamens zijn

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De tentamens zijn

Steeds vaker zijn studenten te vinden op de campus, in plaats van dat ze thuis studeren. Volgens de Vereniging van Samenwerkende Nederlandse Universiteiten (VSNU) hebben studenten de laatste tien jaar meer behoefte gekregen aan fysieke ontmoetingsruimtes en studiewerkplekken.

Om hieraan te kunnen bijdragen voldoen proberen universiteiten hun werkplekken efficiënter in te richten. De laatste tien jaar is het aantal studenten met 22 procent gestegen en het aantal medewerkers met 4 procent. De VSNU deed onderzoek naar de universiteitscampussen in opdracht van de universiteiten.

Hoewel tien jaar geleden nog werd ingezet op de digitalisering en het creëren van een 'digitale campus', lijken studenten nu juist meer te kiezen voor een fysieke
Why “campus favorite study place”?

“push factors”
- Distractions at home:
  - room mates
  - social life, hobbies
  - Netflix
- More pressure on students:
  - higher tuition fees
  - stricter deadlines, rules
  - risk of burn-out

“pull factors”
- Quality of campus:
  - better facilities, network, ICT applications
- Other students
  - more group work
  - group pressure to study
  - friendship and love (!)

Students: “Protect us from working day & night”
“We need regular working hours and deadlines”
Future campus – more dynamic

- More and more (20-25%) unregistered users and visitors
- Preferences international students: quality of life is important
- Research (funding) has become more unpredictable (<2 year contracts)
- More temporary staff
- Functional demands change rapidly (labs, ICT, legislation)
Campus models A-B-C as basis

A = traditional
- exclusive & territorial -

B = network
- interactive & shared -

C = virtual
- place independent & individual -

trend in 2006

trend in 2016, 10 years later
Campus NL – “solid, fluid, gas”

A = traditional  
- exclusive & territorial -

B = network  
- interactive & shared -

C = virtual  
- place independent & individual -
Campus strategies in 10 themes

1. Rethinking the academic workplace
2. Creating flexible learning environments with more study places
3. Investing in state-of-the-art laboratories
4. Replace or renovate old faculty buildings as home base
5. Enrich campus with non-academic functions
6. Give new life to old buildings, including heritage buildings
7. Extend opening hours: evenings, weekends, summer school
8. Use circulation space – inside and outside – more effectively
9. Implement "smart tools" for campus navigation
10. Stimulate sustainable behaviour and test innovative technology.
Campus NL – theme 1 “rethinking the academic workplace”

Finding the right combination between:

(A) Individual workplaces
(B) Workplaces to share
(C) Working from home or anywhere else
Campus NL – theme 1 “rethinking the academic workplace”

Finding the right combination between:

(A) Individual workplaces → 12-20 m² usable space → > 20% of resources to campus
(B) Workplaces to share → 7-12 m² → 5% - 20%
(C) Working from home or anywhere else - < 5%
Campus NL – theme 2 “more flexible learning environment”

From 15% m2 assigned for education to 33% m2 for educational activities - including study places in libraries, restaurants, coffee bars, meeting rooms, offices
Campus NL – theme 9 “smart tools”

Preventing “booked, unused space”

Measuring “real campus use” with sensors (Bluetooth, cameras, WiFi / Eduroam etc.)

Design navigation apps for the campus
3. Strategic choices to make
Summarizing campus decisions for the future
Campus NL – combination “solid, fluid, gas”

A = traditional
- exclusive & territorial -

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Which % combination (1) do you have and (2) do you want to have?
Campus strategy responsibility entire university
Campus strategies in 10 themes

1. Rethinking the academic workplace
   Creating flexible learning environments with more study places

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