

Campus Without Boundaries

Start Up Research into the new campus as a contemporary urban prototype

15 August 2011

Burton Hamfelt Architectuur Stedebouw Prototypes
in collaboration with OeverZaaijer architectuur en stedebouw

Campus Without Boundaries
- Research into the new campus as a contemporary urban prototype

Start Up Research Phase 1

d.d. 15 August 2011

Architects:
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in collaboration with OeverZaijer architectuur en stedebouw

Team:
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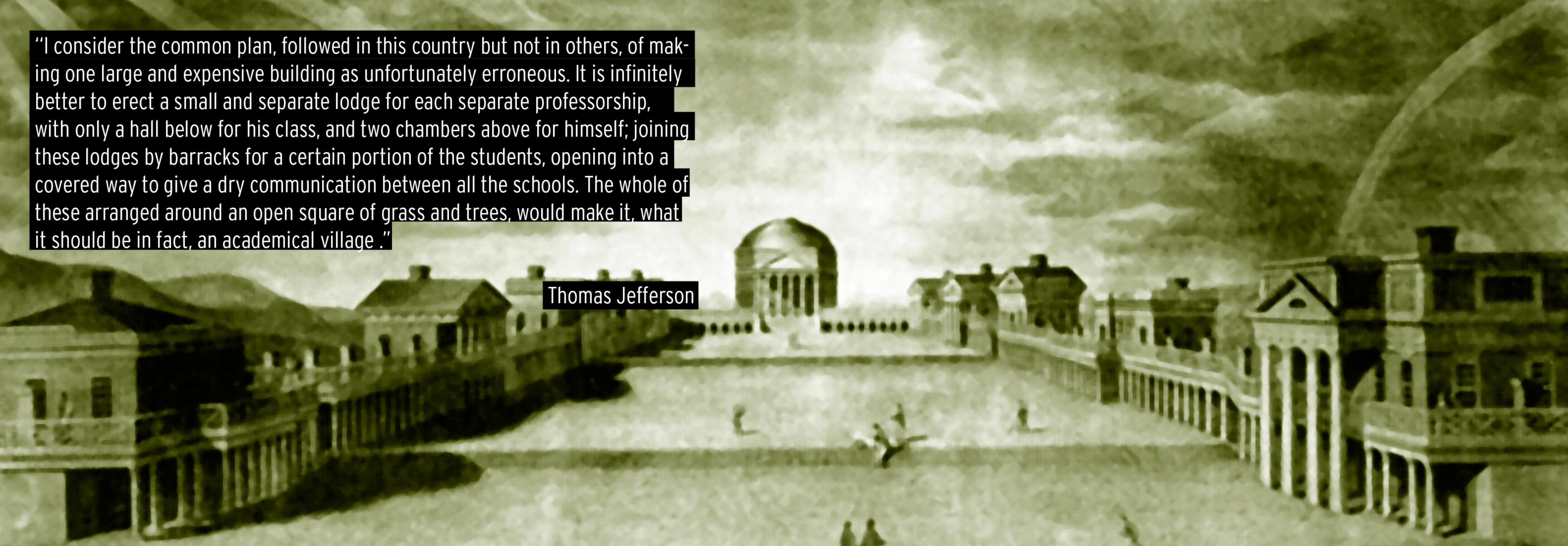
Acknowledgements:
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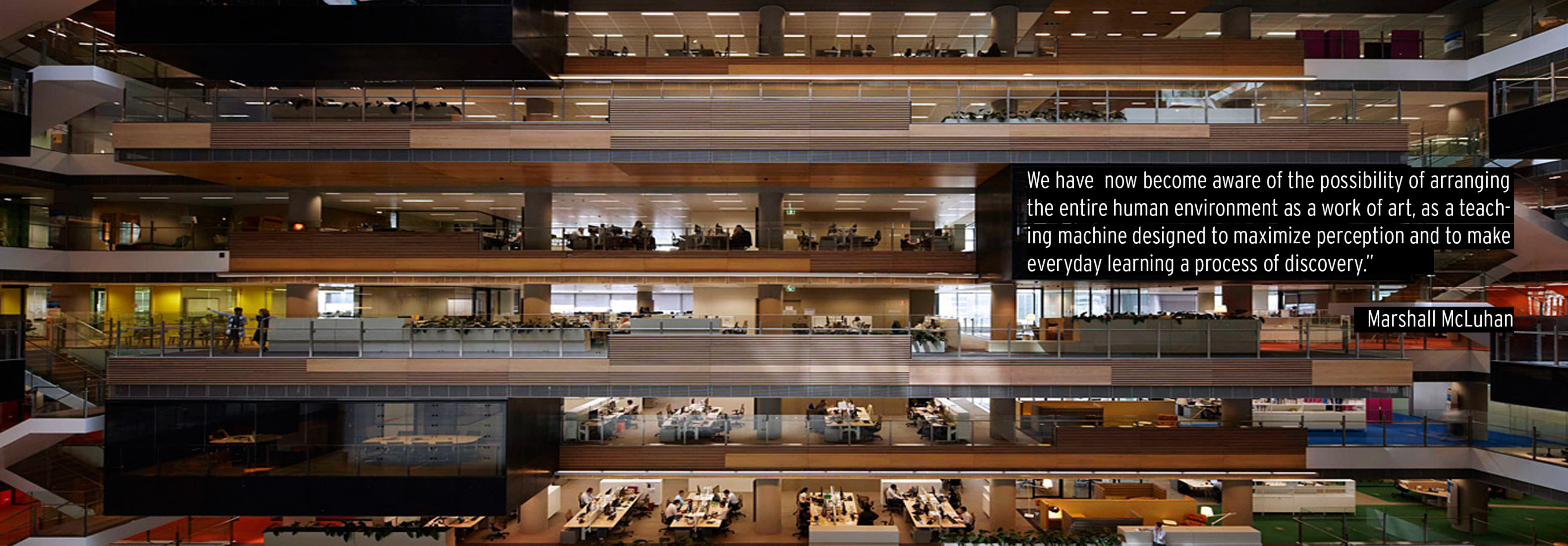
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"I consider the common plan, followed in this country but not in others, of making one large and expensive building as unfortunately erroneous. It is infinitely better to erect a small and separate lodge for each separate professorship, with only a hall below for his class, and two chambers above for himself; joining these lodges by barracks for a certain portion of the students, opening into a covered way to give a dry communication between all the schools. The whole of these arranged around an open square of grass and trees, would make it, what it should be in fact, an academical village ."

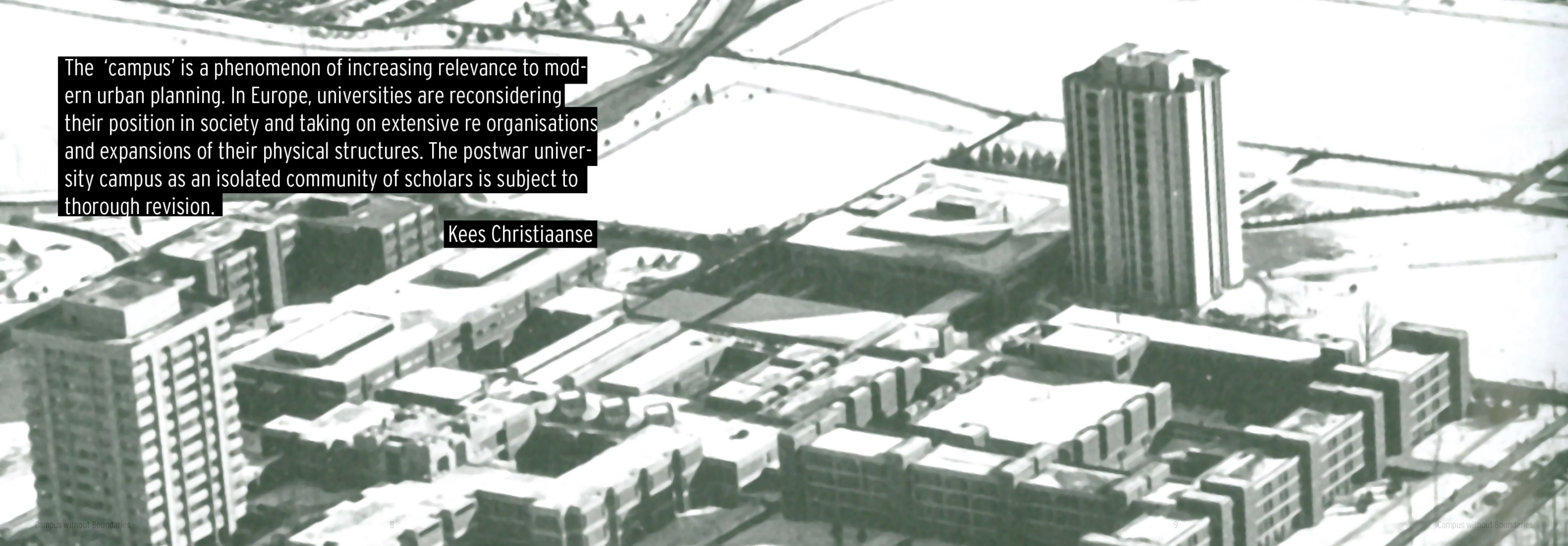
Thomas Jefferson





We have now become aware of the possibility of arranging the entire human environment as a work of art, as a teaching machine designed to maximize perception and to make everyday learning a process of discovery."

Marshall McLuhan

An aerial photograph of a modern university campus. The image shows a dense cluster of buildings, including several multi-story residential-style buildings and a prominent, tall, rectangular tower. The campus is surrounded by urban infrastructure, including roads and parking areas. The overall scene depicts a well-developed, integrated urban environment.

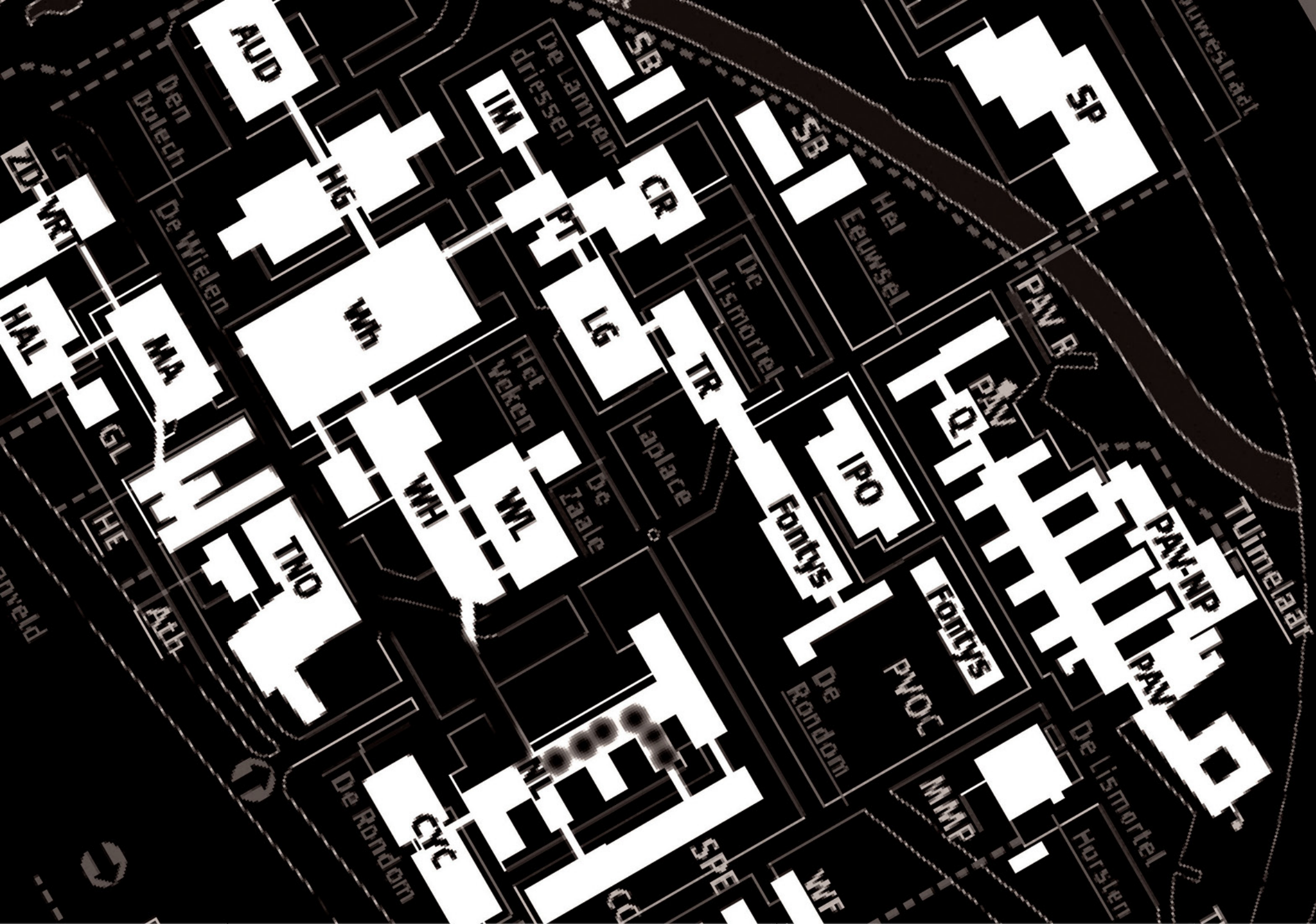
The 'campus' is a phenomenon of increasing relevance to modern urban planning. In Europe, universities are reconsidering their position in society and taking on extensive reorganisations and expansions of their physical structures. The postwar university campus as an isolated community of scholars is subject to thorough revision.

Kees Christiaanse



"Their actions are worthy of being called city planning, because they involve a lot more than the creation of university buildings. Today, universities find that if they want to build at all, they must build entire neighbourhoods, neighbourhoods that provide jobs, housing, services, and entertainment for residents who may have no academic connections"

Robert Campbell, "Universities Are the New City Planners"



Campus Defined

A campus is traditionally the land on which a college or university and related institutional buildings are situated. Usually a campus includes libraries, lecture halls, residence halls and park-like settings. The definition currently describes a collection of buildings that belong to a given institution, either academic or nonacademic. The word first was adopted to describe a particular urban space at the College of New Jersey (now Princeton University) during the early decades of the eighteenth century. Some other American colleges later adopted the word to describe individual fields at their own institutions, but "campus" did not yet describe the whole university property. A school might have one space called a campus, one called a field, and another called a yard.

The meaning expanded to include the whole institutional property during the twentieth century, with the old meaning persisting into the 1950s in some places. Sometimes the lands on which company office buildings sit, along with the buildings, are called campuses. The Microsoft Campus in Redmond, Washington, as well as hospitals use the term to describe the territory of their facilities. The word "campus" has also been applied to European universities, although most such institutions are characterized by ownership of individual buildings in urban settings rather than park-like lawns in which buildings are placed.

Wikipedia

Campus without Boundaries

Educational buildings in the Netherlands are getting bigger and bigger. Much of this can be explained through the fusion of different schools and the wish to bundle social amenities into one building in the name of efficiency. While the motivation for this increase in size is primarily pragmatic, the spatial and social impact have yet to be adequately studied.

In the past, schools were much smaller and were easy to integrate into the urban fabric because their size was in direct relationship to the environment it was serving and the type of education it was providing. As a result when school buildings get bigger in size there is a risk that they operate as singular autonomous entities in relationship to their surroundings. The buildings generally become internalized rather than to seek connections with the public domain or other buildings. Although making schools larger is a reaction to the problems of smaller schools, the question remains, is the dramatic increase in size of educational building at the expense of flexibility, changes in education and the integration of the immediate urban context?

Changes in Educational Buildings

Educational systems in the Netherlands are undergoing major changes. On all levels from primary school to university new ideas have been developed and new buildings built. Schools take on more tasks and social functions as in the “brede school” concept that

creates a hybrid social building for the community. On one hand we see the rise of, the merging of VMBO and MBO and competency based learning approach to education. On the other hand, the ROC's are integrating commercial and social amenities into multifunctional complexes. Moreover HBO and Universities are working closely together, seeking each other in proximity to share facilities and explore cross overs. All of these developments have translated into large educational complexes with an unexpected consequence to urban development beyond the buildings themselves. Schools are functioning more and more as real estate developers without really understanding this new role.

Given the unique demands of size and functions, it becomes increasingly impossible for the Dutch inner city to accommodate the schools or university buildings. Therefore there is a tendency for large schools to move outward to the fringes of the city or even beyond. And through this relocation and increase in size, the building creates a growing independence from its surroundings. Large institutes be it schools, office buildings or hospitals tend to absorb all facilities into its own structure. As a consequence large buildings and institutions turn their back to the city through internalizing all the facilities to only it's users and not passers by. While the increase in size and relocation of large schools to peripheral sites is likely to continue into the future, present trends and challenges in education and learning environments suggest that the traditional education experience through one enclosed and dedicated space is no longer necessary or desirable.

More research is needed

This study originally was conceived as a reaction to the increase of size in school buildings as a de facto plan due to financial and efficiency models and not per se, as an ambition. The absence of recent examples particularly in the Netherlands between changes in education and the creation of new types of innovative school buildings other than through it's size and function mixing is increasingly evident. This could be explained through how the role of the architect in many of these buildings has also been dramatically reduced due to the same efficiency factor (DBFMO). We ask, is scaling up or bigness therefore our only answer to the future of schools in the Netherlands? What happens when school buildings are so big that their integration with the city and their ability to transform over time becomes problematic? Do they become too autonomous? Are there alternatives?

Our main research question is; can the campus model be an alternative to the increase in size of educational and closed academic environments through realigning their relationship to the existing city?

The mixture of educational buildings and city represents a powerful combination for the creation of unique educational and social - economic zones in the city. Along with challenges coming from within academia and education, new technologies and research opportunities, global economics and urban dynamics are putting pressures on urban campuses to not only expand but also engage in large-scale real estate development. In many ways educational complexes and universities in particular are the emerging industries of today. It is precisely at this moment when the overlaps between the production of knowledge and the creation of urban fabric go hand in hand in the (university) campus model. As large educational complexes and universities take on new roles as city planners and developers, they have ever more responsibility in the design of the communities and cities that they transform.

Educationomics

Cities particularly in North America are actively encouraging higher education not only to spark growth but also to carry it out. "If knowledge production in all its varied forms - economic, cultural, scientific, and social - is the key mission of the university and simultaneously critical to urban growth and revitalization, how do the campus and urban forms reflect this relationship? What new spatial practices are emerging from this fusing of missions?" (The City as Campus, Sharon Haar, p. 150) Higher forms of educational bodies and university campuses need to adapt an urban design agenda in their expansion or fusion plans. Increasingly complaints of a lack of a community or just inadequate buildings that do not keep up

with technological, energy use, internal climates, pedagogical and demographic changes in educational buildings motivate school bodies to implement new building programs. But if there are issues that need to be addressed since the advent of the school and university building booms of the 1960's and 70's, these complexes need to actively communicate and integrate their actions with the surrounding neighbourhoods and in doing so redefine their relationship with their host city. Changes in education are reflected most likely in the changes going on in society. The increase of knowledge as the basis of the economy is the dramatic trend since the last 40 years.

Campusification

Likewise this strategy of the campus being a socially robust and economically driven urban concept is not that pronounced in the Netherlands. In fact many of the university building campuses in the Netherlands are located at the edges of the city or a few buildings centrally located due to their historical beginnings as small elitist institutions in the 1600 and 1700's. This development is also in line with the greater global mobility of not only graduate students looking which city they would like to study in but also new forms of internationalization in other types of work places that are seeking the right spatial environment to promote further research and learning environments. Education is not only changing, it is expanding dramatically in all forms, infiltrating the work place work and housing market, because people want to be closer to the action and social networks.

None Stop Learning

We live in a time in which education is not exclusively for the young. Career changes and development in technology pushes if not forces us, to constantly educate ourselves. Education and work are an integral part of our daily live. In the global world in which cities and universities are competing to attract international companies, highly educated people and talented students, the surroundings in which these activities take place become increasingly important. The ability to sustain learning as an ongoing enterprise will have a direct impact on the dynamics of the work place and the role of the school in the city. Not the separation but the successful integration of housing, education and work spaces is the way of the future.

Campus as urban catalyst

While this project will be the main starting point for further research and design in a follow up phase, our current work is focussed on how to re-align the campus model to the changing needs and emerging roles of educational institutions, live work environments and the existing city. Research into the campus models as a contemporary urban prototype is intended to dive into the deep end of what has been built and what the plans are of some of the leading university and research based campuses around the world. How can they become models to study further later in depth? Why do some work? Why do some fail? What are the unique spatial features of these successes and failures? Can architects think about how to plan campuses but use this spatial model as a means to think of new ones? The Netherlands educational landscape is not alone in the world. The changes and developments occurring in the world play out here as well and vice versa. This study will attempt to suggest another goal, to introduce the campus as a model to not only deal with the problem of the big building with their backs to the city but also the campus model as a economic motor to kick start urban transformation and economically sustainable strategies for the city.

Research Structure

The purpose of 'Campus without Boundaries' is about starting up research into the educational campus as an alternative for:

- The concentration of educational functions into one singular large school building
- Closed educational models with their back to the city

For this research we define the campus model the combination of urban atmosphere with openness. Old and new buildings of different scale and typology can be placed next to each other in a dense urban green. Because of this, the campus could offer a more flexible structure, more suitable for the present trends and challenges of education in the Netherlands. Following demographic fluxes the campus could grow or shrink easier than the present large buildings. Buildings can be added, changed or removed without affecting the complex as a whole. The increasing mixture of old and new buildings, empty buildings, lower energy use, renovation and the desire for more green spaces will be the focus in the future and



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educational campus can stimulate this development. The campus model will not just be about the city in a city, it will be the city. A campus without boundaries. In this way the educational centres will become important social hubs at parts of the city that are still in development or being renewed. In the more open structure of the campus facilities could again become part of a larger social circle.

Project structure for Phase 1:

STAGE 1

What is the Campus? (Typology studies)

- Inventorying of a selection of the North American, European and Dutch university campuses
- Current campus design projects in the Netherlands
- Research current publications and research into the campus

STAGE 2

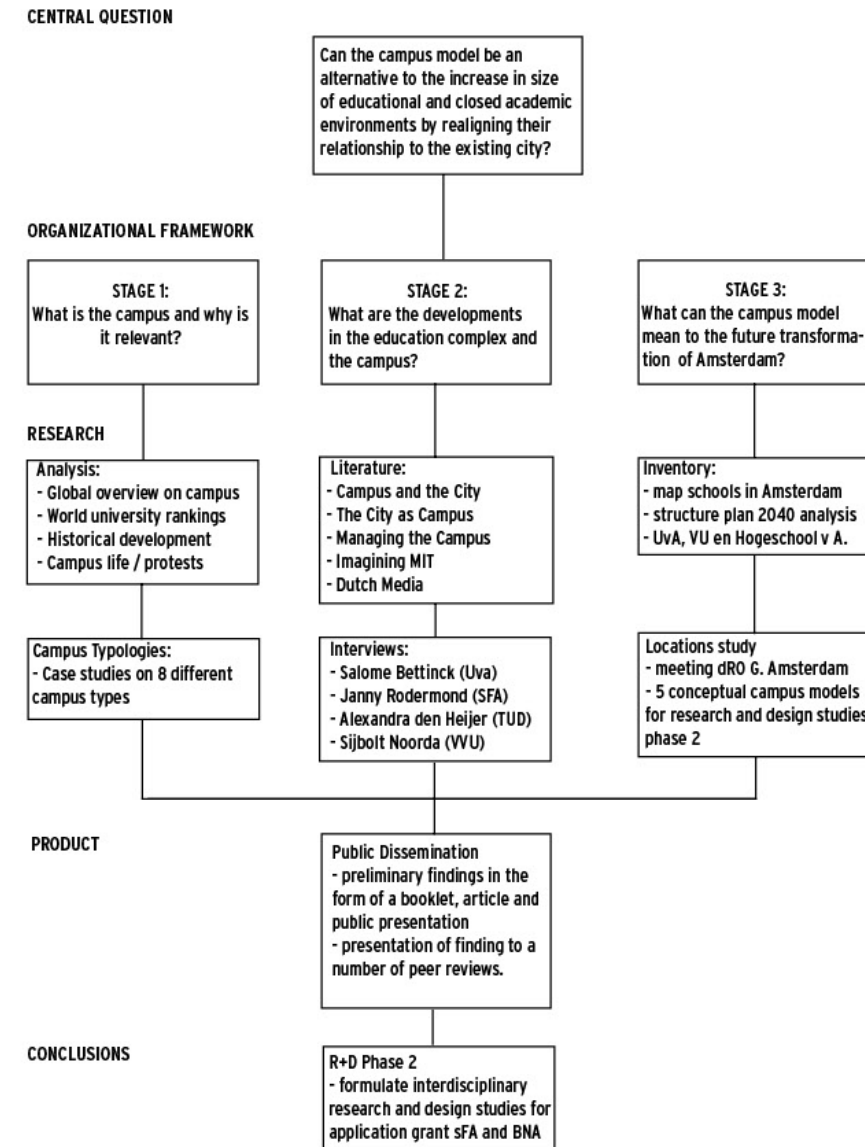
What could be the role of the campus in relationship to the changes in education? (Analysis and interview format)

- Analysis and data research of the trends and challenges facing educational buildings
- Interviews with key spokesman in the educational field, institutions and innovation, work and the city.
- Focus on independent learning schools such as the, ROC / Hogeschool /University

STAGE 3

What can the campus mean to the city? (Formulate research and design urban strategies)

- Interview key figures in the city of Amsterdam to locate sites and locations in Amsterdam in order to find concrete locations for the later phase
- Formulate research and design task for the later phase
- Document findings in a final report document



Student gaat leren voor zichzelf te beginnen

'Geld moet terug naar het onderwijs'

Beter hbo: toezicht tot in de klas

UvA en VU staan onderaan in top 10

Scholieren, jullie doen het wél goed
Nederlands onderwijs blijkt zo slecht niet

Help! Leiden wil uitbreiden

Onrust in gemeenteraad over de Haagse plannen van de universiteit

Het wordt vechten om studenten

Studenten worden belangrijk voor de

Campus HvA duur drama

Universiteit als merk

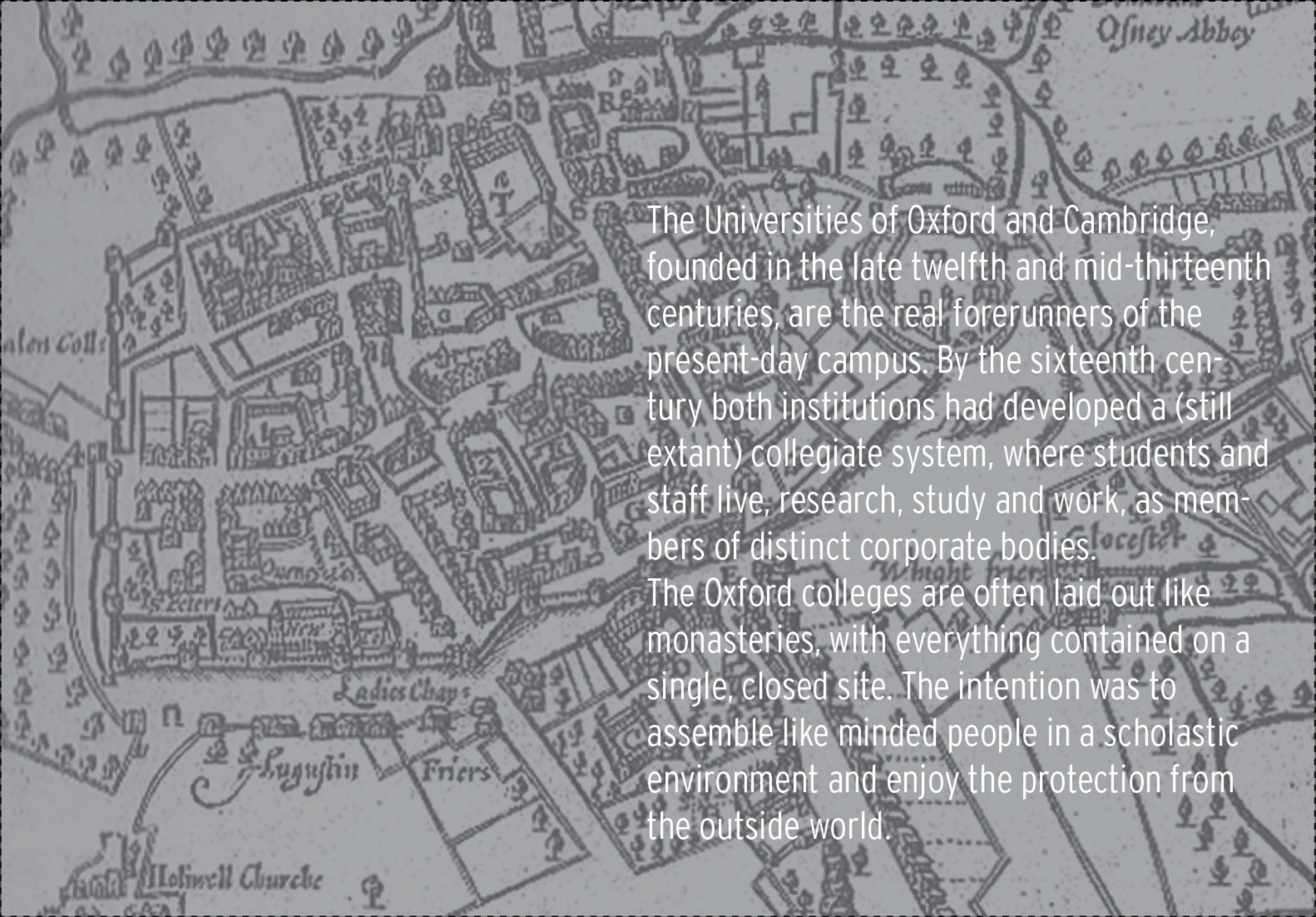
De cijfers vallen mee

Waarom hard studeren

als je als zesjesklant toch ook studiefinanciering krijgt?

HOE KRIKKEN
WE HET NIVEAU
VAN HET ONDERWIJS
WEER OP ?

History



The Universities of Oxford and Cambridge, founded in the late twelfth and mid-thirteenth centuries, are the real forerunners of the present-day campus. By the sixteenth century both institutions had developed a (still extant) collegiate system, where students and staff live, research, study and work, as members of distinct corporate bodies.

The Oxford colleges are often laid out like monasteries, with everything contained on a single, closed site. The intention was to assemble like minded people in a scholastic environment and enjoy the protection from the outside world.



MIT, Cambridge, USA

American Campus

The first colleges in the United States were founded in the early 1600's. Harvard led the way in 1636. The value placed on learning is evident from the architecture and in the 1630's the first college building at Harvard being at time the largest structure in the district. From the start student accommodation was also provided on site, in order to foster community spirit. The English collegiate system served as a model. In 1817 Thomas Jefferson built the University of Virginia, Charlottesville as an 'academic village', as he called it. This established the idea of colleges and universities as independent entities, self contained microcosms. The American campus has advanced such to meet both didactic and social ideals. The American campus, the word campus, was first used in this sense at Princeton in the late eighteenth century. This brought to bare that architects are not only concerned with the construction of the individual buildings but have also to take into account the planning of the site as a whole.

While the late nineteenth century brought in a degree of architectural eclecticism it brought also in the town planning ideals of the 'City Beautiful.' Emerging universities saw themselves as towns and expected the architecture to be suitably imposing. Thus a new development



Illinois Institute of Technology, IIT, Chicago, USA

occurred at the turn of the previous century to locate campuses out in the country, even in isolated areas. The ideal country life as an alternative to the urban corruption. The campus becomes a small world all of it's own.

Post War Campus

The longing for the 'open field' meant that campus design in the 20th century and the after 1945 gave way to more open and individual concepts based on modernist ideals. In the USA individual masterpiece objects came to emerge as the shift from coherency towards the individuality of the building object became the norm. Education through architecture became a theme for campuses in the coming years up and until the 1960's. It was both didactic and authoritarian. Almost utopian the layout of campuses and their buildings imposed the belief that students were part of an elite few in a self contained far away community. This type of internal unity brings with it the closing ranks of the outside world. And with that presents it's very danger. Students can also be seen as a political force able to congregate and plan actions. The riots on campuses through out the world during the 1960's account for this.

Student Revolts 1960's to today...

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But one question remained unanswered....



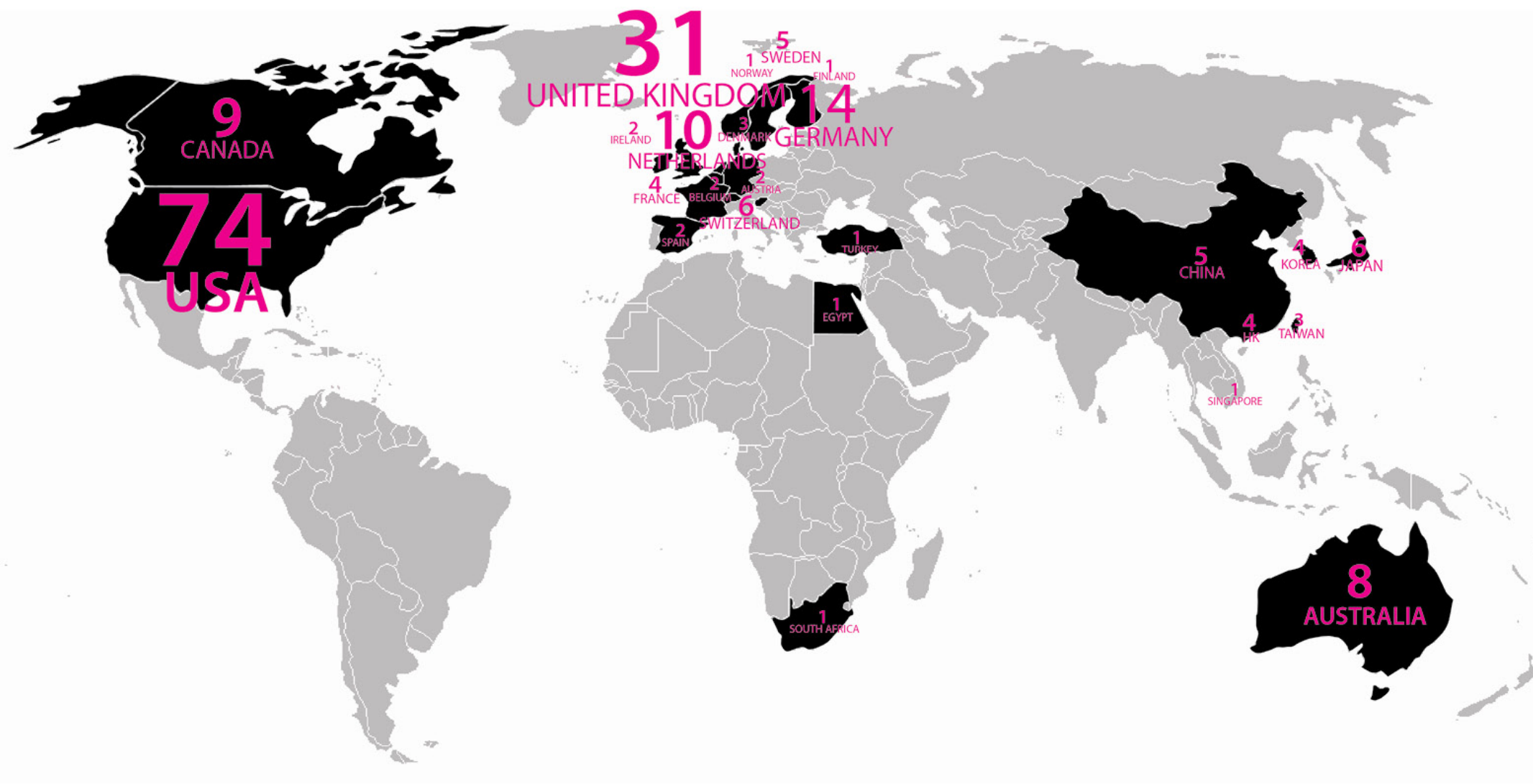
The Global University Campus

Due to the emergence of the global educational market, more and more higher education and universities are marketing themselves in an international context. In so doing that students are, or will become, informed consumers making rational choices of higher education courses and institutions. Both local and worldwide.

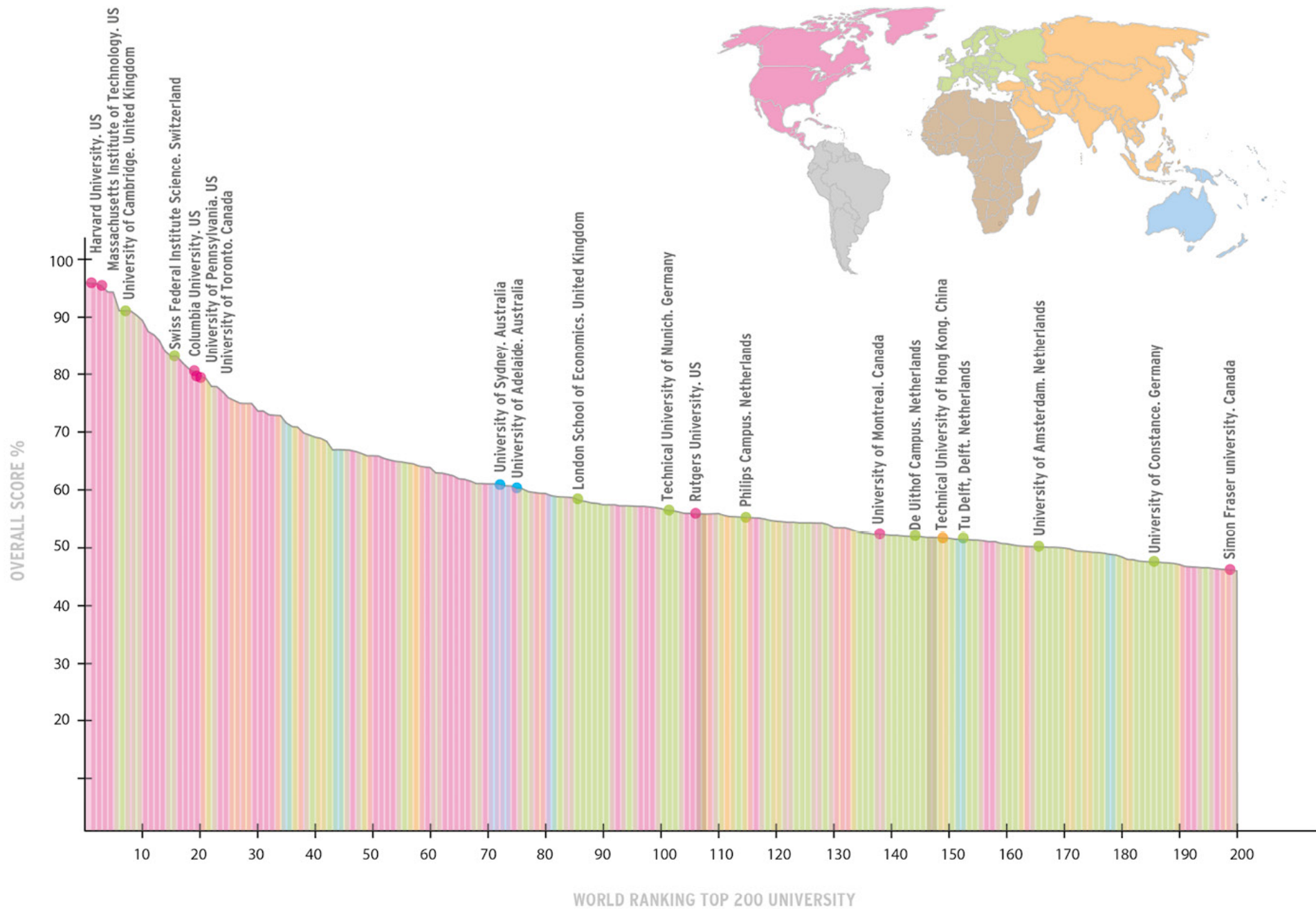
Times Higher Education World University Ranking Performance Indicators

Until 2009, the Times Higher Education (THE) World University Ranking were developed in cooperation with QS. In 2010 THE selected Thomson Reuters as their new ranking data provider. The 2010 ranking is based on a new methodology using thirteen performance indicators. These indicators fall into five categories with different weighting in the final ranking score: citations (32.5%), research (30%), teaching (30%), international mix of staff and students (5%), and industry income (2.5%). The teaching and research scores are based to a large extent on academic reputation surveys (50% and 65% respectively).

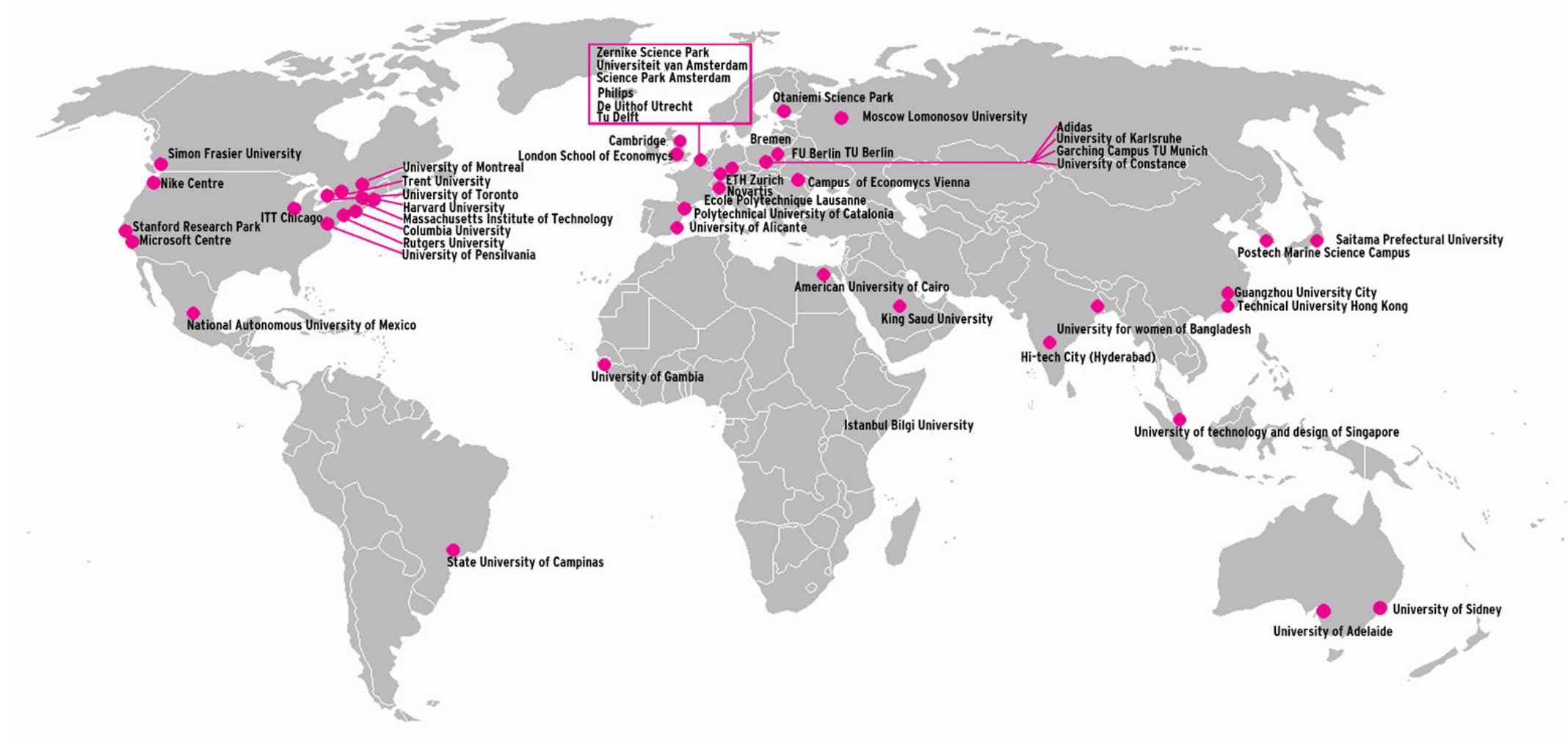
In the first round of the new Times ranking, published in September 2010, the University of Amsterdam is ranked 165th. Ten Dutch universities are listed in the top 200, all of them ranking in the 100s. THE also publishes a top 50 per subject area. The UvA is ranked 39th in Arts and Humanities.



Top World Ranking Universities per country according to the Times Higher Education World University Ranking 2010



The campus as a new global urban role model...



HARVARD UNIVERSITY
Cambridge, Massachusetts

Established in 1636
Endowment: US\$27.4 billion
Administration staff: 13,171
Students: 21,125
Students in campus housing: 97%
Urban coverage: 2,391,692 m²
QS World University Ranking: 2
Times Higher Education Ranking: 1



COLUMBIA UNIVERSITY
New York City, New York

Established: 1754
Endowment: US\$6.5 billion
Academic staff: 3,566
Students: 26,399
Urban coverage: 1,210,010 m²
QS World University Ranking: 11
Times Higher Education Ranking: 18



IIT
Chicago, Illinois

Established: 1940
Endowment: US\$338.1 million
Academic staff: 659
Students: 7,707
Urban coverage: 490,000 m²
QS World University Ranking: 374
Times Higher Education Ranking: n/a



MIT
Massachusetts

Established in 1861
Endowment: US\$8.3 billion
Academic staff: 1,009
Students: 10,384
Urban coverage: 679,872 m²
Type: Inner-city campus
QS World University Ranking: 5
Times Higher Education Ranking: 3



UNIVERSITY of PENNSYLVANIA
Philadelphia, Pennsylvania

Established in 1740
Endowment: US\$5.67 billion
Academic staff: 4,127
Students: 20,643
Surface: 4,010,000 m²
Type: Inner-city campus
QS World University Ranking: 12
Times Higher Education Ranking: 19



NIKE WORLD CAMPUS
Washington County, Oregon

Established: 1978
Employees: 7000+
Urban coverage: 781,043 m²
Type: Corporate campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a



RUTGERS UNIVERSITY
Camden, New Jersey

Established in 1766
Endowment: US\$603 million
Administrative & Academic staff: 9,119
Students: 52,471
Urban coverage: 11,128,855 m²
Type: Inner-city campus
QS World University Ranking: 216
Times Higher Education Ranking: 105



UNIVERSITY of MONTREAL
Montreal, Quebec

Established: 1878
Endowment: CAN\$142.5 million
Administrative/Academic staff: 10,986
Students: 55,540
Surface: 607,028 m²
Type: Inner-city campus
QS World University Ranking: 136
Times Higher Education Ranking: 138



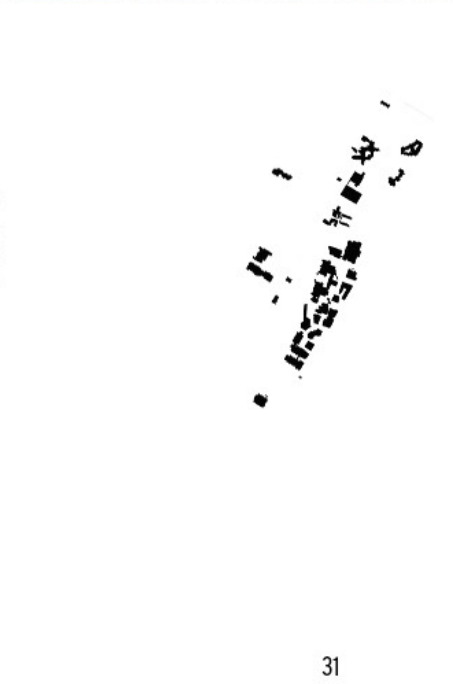
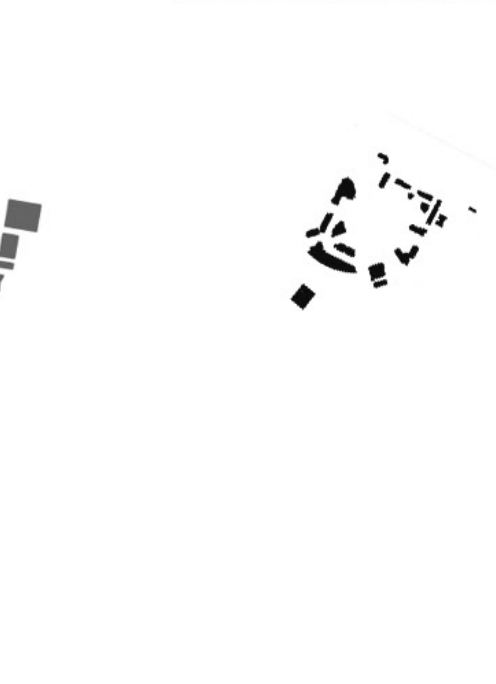
STANFORD RESEARCH PARK
Palo Alto, California

Built in 1951
Employees: 23,000
Surface: 2,800,000 m²
Type: Corporate campus
QS World University Ranking: 136
Times Higher Education Ranking: 138



SIMON FRASER UNIVERSITY
Burnaby, British Columbia

Established: 1965
Endowment: CAN\$182 million
Students: 34,162
Urban coverage: 1,700,000 m²
Type: Greenfield campus
QS World University Ranking: 214
Times Higher Education Ranking: 199



UNIVERSITY of TORONTO
Toronto, Ontario

Established in 1827
Endowment: CAN\$1.437 billion
Administrative & Academic staff: 7,346
Students: 45,009
Surface: 712,247 m²
Type: Inner-city campus
QS World University Ranking: 29
Times Higher Education Ranking: 19

TRENT UNIVERSITY
Peterborough, Ontario

Established: 1964
Endowment: CAN\$26 Million
Academic staff: 251
Students: 7,160
Surface: Unknown
Type: Greenfield campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

MICROSOFT CAMPUS
Palo Alto, California

Employees: 89,000
Established: 1975
Surface: Unknown
Type: Corporate campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

UNIVERSITY of ADELAIDE
Adelaide, Australia

Established: 1874
Endowment: £57,4 million
Admin. staff: 1,353
Students: 21,619
Surface: Unknown
Type: Inner-city campus
QS World University Ranking: 103
Times Higher Education Ranking: 73

UNIVERSITY of SYDNEY
Sydney, Australia

Established: 1850
Endowment: AU\$937 million
Academic staff: 3,081
Students: 47,775
Surface: 4,010,000 m²
Type: Inner-city campus
QS World University Ranking: 37
Times Higher Education Ranking: 71

UNIVERSITY of CAMBRIDGE
Cambridge, England

Established: 1209
Endowment: 3.95 billion pounds
Administration staff: 9,035
Students: 17,527
Urban coverage: 349,884 m²
QS World University Ranking: 1
Times Higher Education Ranking: 6

LONDON SCHOOL of ECONOMICS
London, England

Established: 1895
Endowment: £57,4 million
Academic staff: 1,303
Students: 8,810
Surface: Unknown
Type: Inner-city campus
QS World University Ranking: 80
Times Higher Education Ranking: 86

COURTAULD INSTITUTE of ART
London, England

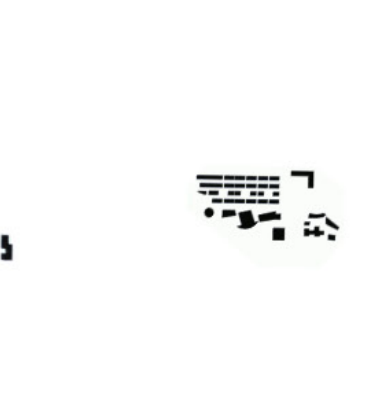
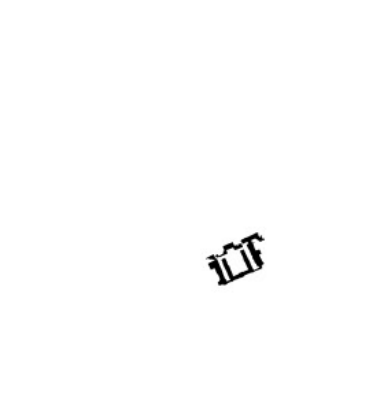
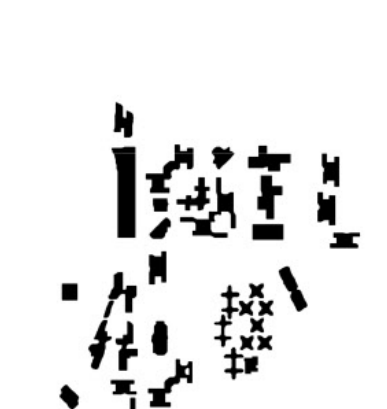
Established: 1932
Admin. & Academic staff: 82
Students: 457
Surface: Unknown
Type: Inner-city campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

MOSCOW LOMONOSOV STATE
Moscow, Russia

Established: 1755
Endowment: Unknown
Administration staff: 15,000
Students: 47,000
Surface: 262,500 m²
Type: Inner-city campus
QS World University Ranking: 66
Times Higher Education Ranking: 149
Largest and oldest university in Russia.
Tallest educational building (240 m tall).

TECHNICAL UNIVERSITY
Barcelona, Spain

Established: 1980
Endowment: Unknown
Administration staff: 1,944
Students: 7,824
Surface: 160,500 m²
Type: Inner-city campus
QS World University Ranking: 43
Times Higher Education Ranking: 169
Best technical university in Spain



ISTANBUL BILGI UNIVERSITY
Istanbul, Turkey

Established: 2007
Endowment: Unknown
Administration staff: 350
Students: 1,200
Surface: 110,000 m²
Type: Inner-city campus
QS World University Ranking: 1056
Times Higher Education Ranking: 947

APPLIED SCIENCES
Karlsruhe, Germany

Established: 1878
Endowment: Unknown
Administration staff: 200
Students: 6,000
Surface: 262,500 m²
Type: Inner-city campus
QS World University Ranking: 166
Times Higher Education Ranking: n/a
Largest university in the state.

TU BERLIN
Berlin, Germany

Established: 1879
Endowment: Unknown
Administration staff: 7,100
Students: 30,000
Surface: 377,662 m²
Type: Inner-city campus
QS World University Ranking: 137
Times Higher Education Ranking: 48
Ranked as the 7th best German university

NORTHAMPTON UNIVERSITY
Northampton, UK

Established in 2011
Endowment: £940,00
Administration staff: 202
Students: 3,107
Surface: 210,000 m²
Type: Greenfield campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

ECONOMICS UNIVERSITY
Vienna, Austria

Created: 2012
Endowment: Unknown
Administration staff: 1,200
Students: 15,000
Surface: 60,000 m²
Type: Inner-city campus
QS World University Ranking: 132
Times Higher Education Ranking: n/a

TECHNOLOGY PARK
Bremen, Germany

Established: 1988
Endowment: Unknown
Administration staff: 10,000
Students: 21,000
Surface: 1,244,600 m²
Type: High-tech campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

TU MUNICH
Garching, Germany

Established in 2012
Endowment: Unknown
Administration staff: 1,200
Students: 15,000
Surface: 60,000 m²
Type: High-tech campus
QS World University Ranking: 58
Times Higher Education Ranking: 101

SCIENCE PARK, UvA
Amsterdam, the Netherlands

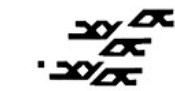
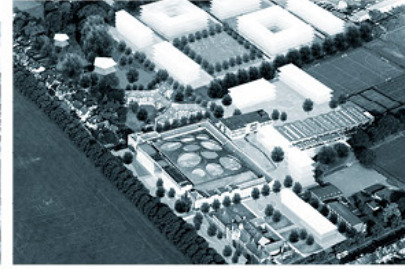
Established: 1988
Endowment: Unknown
Administration staff: 1,500 + 10,000 planned
Students: 2,167
Surface: 700,000 m²
Type: High-tech campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

MOBILE LIFE CAMPUS
Wolfsburg, Germany

Established: 2006
Endowment: Unknown
Administration staff: 680
Students: 4,200
Surface: 170,244 m²
Type: High-tech campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

ZERNIKE SCIENCE PARK
Groningen, the Netherlands

Established: 1983
Endowment: Unknown
Administration staff: 10,000
Students: 21,000
Surface: 730,000 m²
Type: High-tech campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a



ADIDAS HEADQUARTERS
Herzogenaurach, Germany

Established: 1998
Endowment: Unknown
Administration staff: 3,165
Surface: 472,600 m²
Type: Corporate campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

NOVARTIS CAMPUS
Basel, Switzerland

Established: 2001
Endowment: Unknown
Administration staff: 15,000
Surface: 1,744,600 m²
Type: Corporate campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

OTANIEMI SCIENCE PARK
Espoo, Finland

Established: 1949
Endowment: Unknown
Administration staff: 31,000
Students: 21,000
Surface: 717,000 m²
Type: Corporate campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

PHILIPS CAMPUS
Eindhoven, the Netherlands

Established: 1999
Endowment: Unknown
Administration staff: 6,300
Students: 21,000
Surface: 1,030,000 m²
Type: Corporate campus
QS World University Ranking: 126
Times Higher Education Ranking: 114

VITRA CAMPUS
Weil am Rhein, Germany

Established: 1950
Endowment: Unknown
Administration staff: 850
Surface: 122,360 m²
Type: Corporate campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

UNIVERSITY OF ALICANTE
Alicante & San Vicente, Spain

Established: 1979
Endowment: Unknown
Administration staff: 2319
Students: 25,525
Surface: 1 km²
Type: Greenfield campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

BRANDENBURG TU
Cottbus, Germany

Established: 1991
Endowment: Unknown
Administration staff: 1,218
Students: 6,400
Surface: 36,875 m²
Type: Greenfield campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a

DE UITHOF CAMPUS
Utrecht, the Netherlands

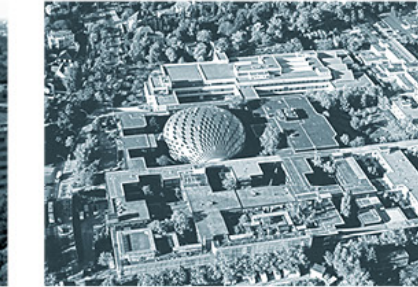
Established: 1954
Endowment: Unknown
Administration staff: 3614
Students: 14,230
Surface: 1,840,000 m²
Type: Greenfield campus
QS World University Ranking: 83
Times Higher Education Ranking: 143

FREE UNIVERSITY OF BERLIN
Berlin, Germany

Established: 1948
Endowment: Unknown
Administration staff: 4,871
Students: 31,304
Surface: 320,000 m²
Type: Greenfield campus
QS World University Ranking: 70
Times Higher Education Ranking: n/a

SCIENCE CITY ETH
Zurich, Switzerland

Established: 1855
Endowment: Unknown
Administration staff: 9,049
Students: 15,093
Surface: 242,000 m²
Type: Greenfield campus
QS World University Ranking: 18
Times Higher Education Ranking: 15



UNIVERSITY of CONSTANCE
Constance, Germany

Established: 1966
 Endowment: Unknown
 Administration staff: 1,049
 Students: 10,000
 Surface: 99,987 m²
 Type: Greenfield campus
 QS World University Ranking: 312
 Times Higher Education Ranking: 186

TU DELFT
Delft, the Netherlands

Established: 1842
 Endowment: Unknown
 Administration staff: 2,683
 Students: 15,321
 Surface: 3,025,000 m²
 Type: Greenfield campus
 QS World University Ranking: 108
 Times Higher Education Ranking: 151

ECOLE POLYTECHNIQUE FEDERALE
Laussane, Switzerland

Established: 2002
 Endowment: Unknown
 Administration staff: Unknown
 Students: 6,800
 Surface: 3,025,000 m²
 Type: Greenfield campus
 QS World University Ranking: n/a
 Times Higher Education Ranking: 48

FEDERALE TU HONG KONG
Hong Kong, China

Established in 1937
 Endowment: Unknown
 Administration staff: 2,324
 Students: 28,000
 Surface: 98,760 m²
 Type: Inner-city campus
 QS World University Ranking: 166
 Times Higher Education Ranking: 149

SAITAMA PREFECTURAL UNIVERSITY
Saitama, Japan

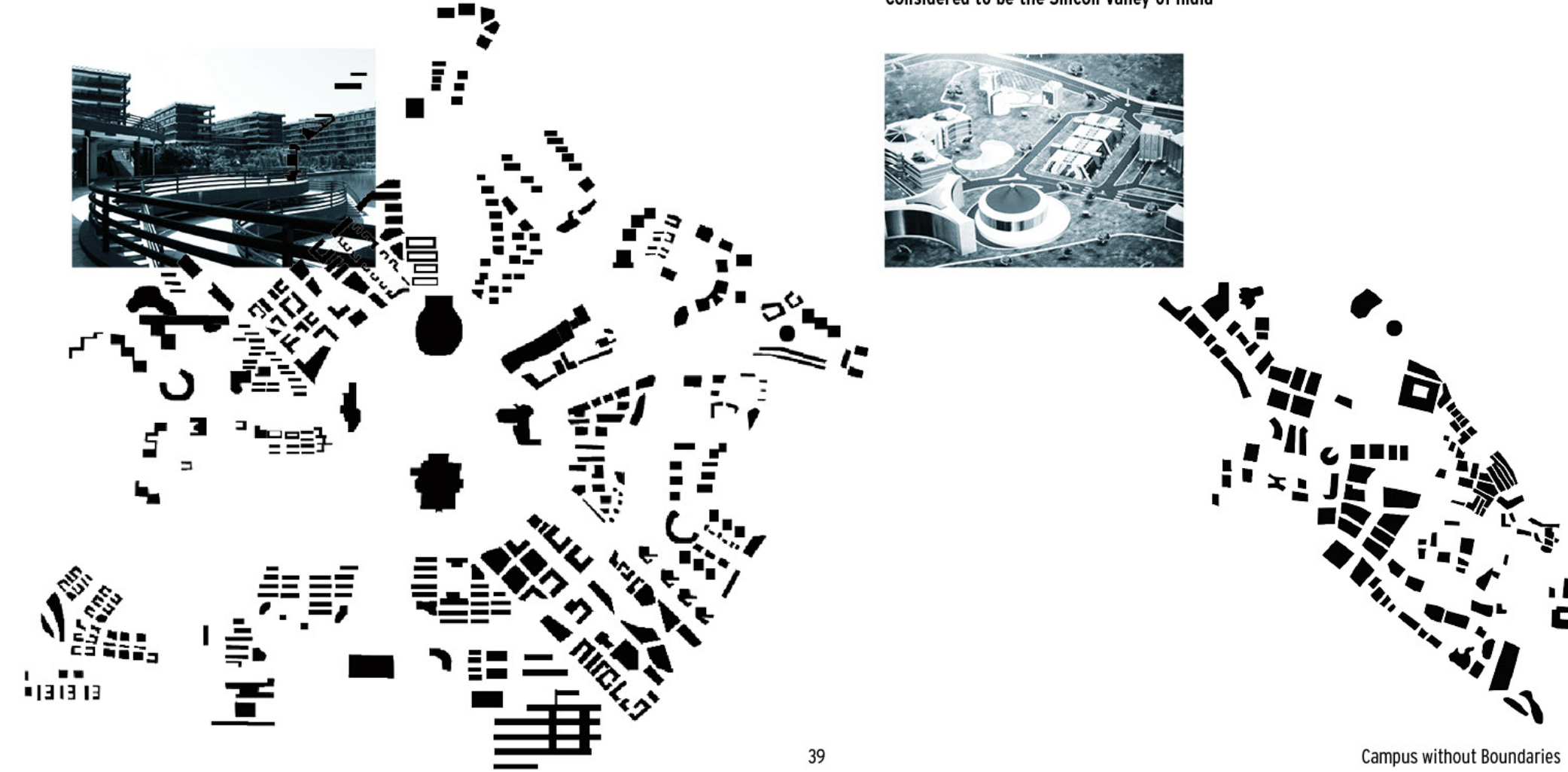
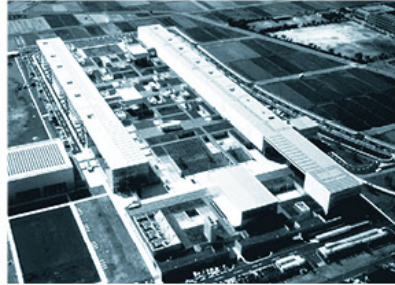
Established: 1999
 Endowment: Unknown
 Administration staff: 473
 Students: Unknown
 Surface: 57,000 m²
 Type: Compact campus
 QS World University Ranking: n/a
 Times Higher Education Ranking: n/a

GUANGZHOU UNIVERSITY CITY
Guangzhou, China

Established in 2006
 Endowment: Unknown
 Administration staff: 160,000
 Students: 120,000
 Surface: 43,200,000 m²
 QS World University Ranking: n/a
 Times Higher Education Ranking: n/a
 Biggest campus in the world (comprised of eight universities)

HI-TECH CITY
Hyderabad, India

Established: 2005
 Endowment: Unknown
 Administration staff: 160,000
 Surface: 4,500,000 m²
 Type: Hi-tech Campus
 QS World University Ranking: n/a
 Times Higher Education Ranking: n/a
 Biggest hi-tech city in India
 Considered to be the Silicon Valley of India



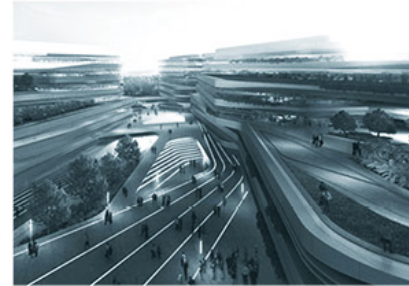
**MARINE SCIENCE CAMPUS
Iuljin, South Korea**

To be established: 2012
Endowment: Unknown
Administration staff: Unknown
Surface: 620,000 m²
Type: High-tech campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a



**UNIVERSITY of TECHNOLOGY
Changi, Singapore**

Established: 2012
Endowment: Unknown
Administration staff: Unknown
Students: Unknown
Surface: 76,846 m²
Type: Inner-city border
QS World University Ranking: n/a
Times Higher Education Ranking: n/a



**KING SAUD UNIVERSITY
Saudi Arabia**

Established: 1957
Endowment: Unknown
Administration staff: 5,000
Students: Unknown
Surface: 37,874 m²
Type: City border campus
QS World University Ranking: 221
Times Higher Education Ranking: n/a



**UNIVERSITY OF GAMBIA
Serrekunda, Gambia**

To be established: 2011
Endowment: Unknown
Administration staff: Unknown
Students: 15,000
Surface: 900,000 m²
Type: Greenfield campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a



**UNIVERSITY for WOMEN
Chittagong, Bangladesh**

To be established: 2012
Endowment: Unknown
Administration staff: Unknown
Students: Unknown
Surface: 720,340 m²
Type: Greenfield campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a



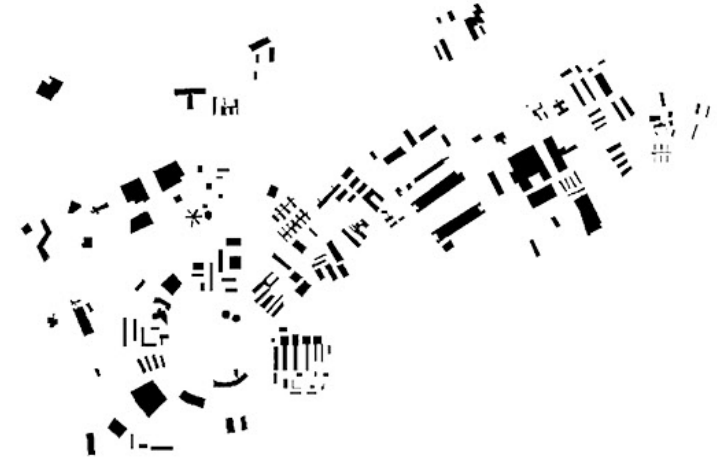
**AMERICAN UNIVERSITY IN CAIRO
Cairo, Egypt**

Established: 2009
Endowment: \$400 million
Administration staff: 374
Students: 6,704
Surface: 3,025,000 m²
Type: City border campus
QS World University Ranking: n/a
Times Higher Education Ranking: n/a



**STATE UNIVERSITY of CAMPINAS
Sao Paulo, Brazil**

Established in 1966
Endowment: Unknown
Administration staff: 9,913
Students: 31,744
Surface: 1,925,700 m²
Type: Greenfield campus
QS World University Ranking: 292
Times Higher Education Ranking: n/a



**NATIONAL AUTONOMOUS UNIVERSITY of MEXICO
Coyacan, Mexico**

Established: 1910
Endowment: Unknown
Administration staff: 35,679
Students: 314,557
Surface: 5,450,874 m²
Type: Greenfield/Inner-city campus
QS World University Ranking: 222
Times Higher Education Ranking: n/a



Society

Towards a Social Typology

A sample of 8 unique campuses is an attempt to break free of the limitations of typological classification where the campus is broken into 4 conventional but essentially spatial categories; 'corporate campus,' 'greenfield campus,' 'urban campus' and the 'high-tech campus.' However the social means of classification allows and gives space to current issues and trends related to education and the existing city.

Each example presented therefore is chosen in its ability to represent a contemporary phenomena in the educational landscape. It reveals both how vulnerable and resilient architecture and design is when confronted with the ongoing task of campus design and the contemporary city.

While virtually all the chosen campuses can fit into the traditional four categories, more research is needed into what kind of classifications can be mapped out when the social and cultural dimension of life are taken as the starting point for new campus prototypes. What we have found is that all the campuses are unique and have their own story. This will be the agenda for the campuses in the future.

Precisely at this moment of increased global mobility, campuses have to compete for students and money through focusing on their own unique storey and their ability to translate student life into a total educational experience.

Change, Social Start Up Network, Divorce, Re-urbanizing the Void, Unplanned Wedding, Designers Dream, Numbers, Identity...



CHANGE

Saitama Prefectural University

...“When you see the building, or see the upper floor plan you may think it has a very strong and compact composition of one single building, but observing it deeply, you can spot how it is broken into small pieces, which are like different classrooms with a similar size to the surrounding and chaotic urban pieces. It is like taking the chaotic urban frame into an arranged ground floor plan. It is divided into these pieces by handling spaces for circulation and voids. It creates complexity out of a series of parts by virtue of how it handles them. This is varied uniformity.

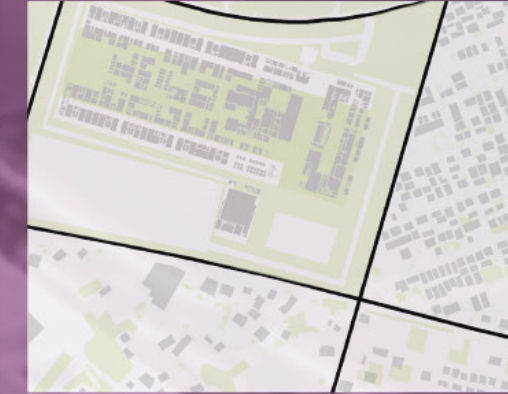
As many university campuses it is situated far away from the centre, but its location doesn't affect architecture. The building is formed by two floors. The second floor is larger and has voids like small courtyards, which let the light get into the first floor. The material is mainly glass and some trees from first floor which also influent in the conception, as the building tries to be a green building inserted and walkable from the street level. During the spring the grass is yellow and the trees bare giving another perception.

The university is formed by two long buildings, which are aligned parallel to each other and horizontally linked by a single-storey ground floor structure. The two wings mainly accommodate laboratories, lecture rooms and work stations, and these functions are connected vertically through a media gallery. One building houses the four-year college, the other one the three-year college. The space in between is designed as a large plaza that works as campus and community park at the same time. The base houses shared facilities, which are also open to the public. The huge roof deck is divided by smaller structures for technical equipment and visually spreads to the surrounding rice fields.

Inside the atrium some facilities for nursing and welfare are situated without divisions. Mixed uses and the possibility for encounters and interactions characterize the campus.”...

By Riken Yamamoto

Void metabolism is an urban concept which focuses on void spaces between buildings when they are rebuilt. In Tokyo the land between houses are filled with greenery. This is a highly sustainable urban concept regenerating itself; with privately owned properties. It can be considered a type of metabolism, though quite different in content than the 1960s architectural idea. At that time metabolism focused on the core, the connector, an utopian world of structure mixed with infrastructure. The dynamics of change in the city of Tokyo go hand in hand with the smallness of its individual elements. Land turns into house, house turns into shop, shop turns into office. Within the boundaries of the void not only the differences in generation but also the Moriyma House.



Social Start-up Network

Stanford Research Park and Silicon Valley

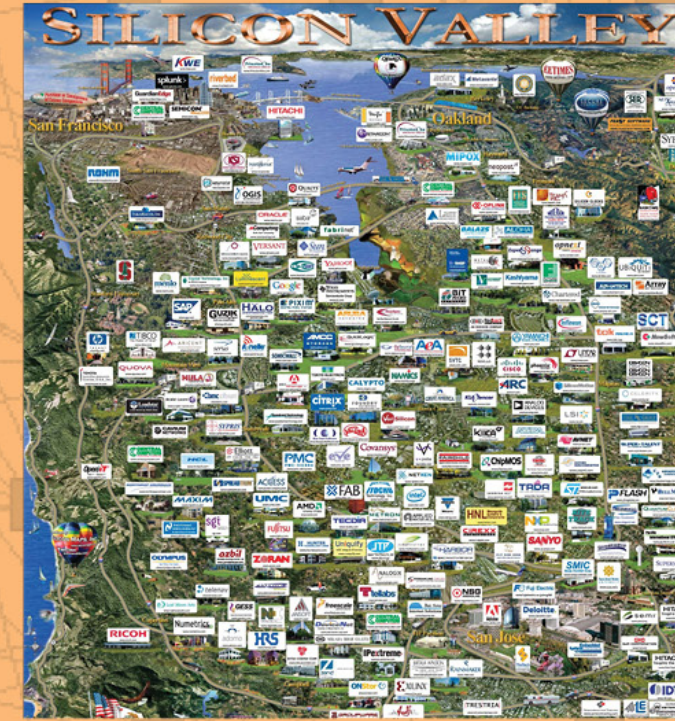
Stanford Research Park is a technology park (hi-tech campus) located in Palo Alto, California. It belongs to the macro park called Silicon Valley, which is composed of several universities, colleges, corporate campuses and research parks. Silicon Valley has a macro urban concept being formed by more than fifteen cities of the southern area of San Francisco Bay. The name of Silicon Valley comes from the huge number of silicon chip innovators and manufacturers were produced in the area. And later, it turned to be one of the biggest hi-tech centres all over the world, home to the electronics industry. It is situated not close to the city centre but integrated in the urban frame, and just next to Stanford University and other developments.

Stanford University played an important role in the creation and growth of Silicon Valley, as it was the first university-owned industrial park. Stanford Industrial Park (now called Stanford Research Park), conceived by Stanford provost Frederick Terman and officially founded in 1951, was the first of its kind." (Social Networks in Silicon Valley). Today it is the home to more than 150 companies whom settled down in the area like, Facebook, Volkswagen, Nokia, Hewlett Packard, General Electric or Toyota.

The Stanford Research Park campus works as a city with its own banks, hospital, post office, fire and police services, shops, cafes, theatres, sport facilities, or offices but without housing, in order to create a good atmosphere for the employees. Another fact to highlight is the huge amount of parking space present in the area. It is also considered as a self-sustaining city, with a power plant, two separate water systems, three dams, lakes, a central heating and cooling plant and a high-voltage distribution system.

The 50 or so research centres in Silicon Valley created a link between the industry and the university. They are the link that information about research activities, innovative ideas, recruitment, etc. that industry needed. Also industries provided funding for researches, opportunities of learning for many students. There are a great exchange of ideas and information that provides benefits for industry and Stanford University. And due to the success of many venture capitalists in Silicon Valley and the expansion of venture capital industry, it attracted other venture capitalists, entrepreneur as well as people with innovative ideas. Therefore, many start-off companies started in Silicon Valley.

The theory is, is that the duplication of Silicon Valley is impossible without understanding the characterization of the social network. The idea of start-up companies is vital to the Silicon Valley. Just when a company grows large due to it 's own success there is a built in resistance to change due to it's past success. What is called the "innovation dilemma." Silicon Valley creates conditions for opportunities to arise for start-ups that explore new ideas while building on ties with organizations around them. Location, start-up, spin-off and large organizations create a network that is geared toward creativity and innovation. Imagine Facebook but than as a real city.



Stanford Research Park



DIVORCE

The University of Utrecht leaves the city

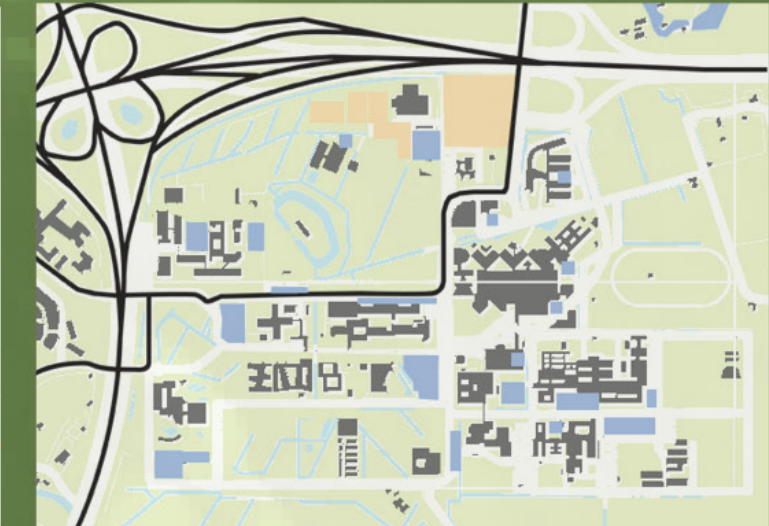
The University of Utrecht was a typical European inner-city university until the early sixties. Growing rapidly, the University of Utrecht became the largest university in Holland. The historic city-centre of Utrecht couldn't facilitate this growth anymore and so the park-meadow area, east of Utrecht was selected to house the extension of the university. The program for this new development consisted of academic faculties only, no other functions, no other institutes, no housing, and so, no Campus.

Separated by a large highway there is no spatial connection between university and city or anything else for that matter. As with the university buildings its connection was seen as purely functional. Suggestions by the City of Utrecht to incorporate some housing in the Uithof-plans were dismissed by the university, considering housing a threat to future growth. Planning and architecture of De Uithof developed along the typical orthogonal lines of sixties modernism, resulting in one of the most disliked areas of Holland; no program, no coherence, nobody around, no atmosphere; a no-go area.

The large complexes with all its internalised facilities created a public domain very similar to a desert, green but no oasis for the students travelling between the university and their homes. Nothing has come to symbolize this disjointed vision of the campus then the publicized and never solved case of rapes at the Uithof (turned eventually into a film). As a way forward, collective bike trips and small busses were organised for students to commute safely.

Radical changes in the thinking about the new university has since then come about. This started with the politically forced cooperation between university- and other third level education, which brought 200.000 m2 of nonacademic buildings to the Uithof. Then the availability of sufficient student-housing became an important area of competition between the different Dutch Universities, forcing the University of Utrecht to change their policy on housing. And finally, as people started to live on the Uithof, the idea was accepted that the Uithof should become a fully grown Campus, including sports, culture, housing, retail and the University Library in the middle of it all. Recent strategy is to intensify the use of existing buildings. While in the past the aim was to add more architectural icons, currently it is aiming at implementing flexible concepts of education and research, reducing the footprint, saving costs and stimulating interaction on campus.

If the university cannot be in the city then bring the city to the university this seems the motto of the Uithof in the last 20 years under the guidance of the OMA master plan. More student housing, (espresso) bars and restaurants have already led to a more lively campus. But with all the improvements the campus has undergone in these years it stays questionable if it will succeed in its quest to become a fully integral society of its own. Indeed its diversity has increased but the modernist setup still dominates the campus. At the end the new housing projects are similar islands in this patchwork of large structures. Its isolated position also brings difficult decisions. Of course the university library belongs in the university campus but with the move from the centre of Utrecht its citizens have lost a valuable public facility. In other words is it feasible to bring the city to the campus and if so is it desirable to amputate such a vital limb that has been part of the city since the era of Enlightenment.



REURBANIZING THE VOID

IIT Campus, Chicago

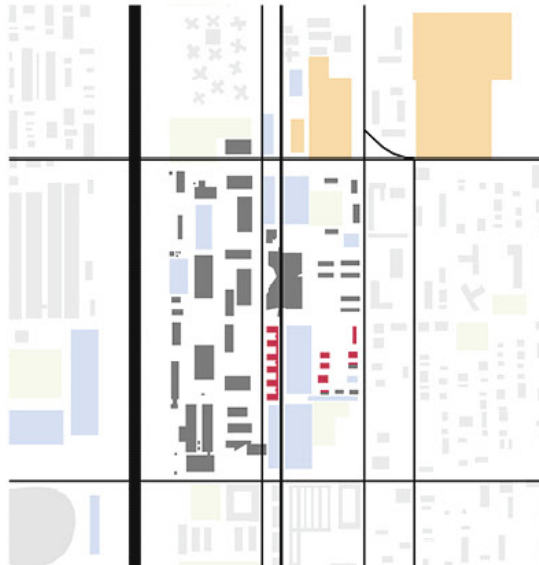
The IIT main campus is an inner-city university campus that was designed by the architect Ludwig Mies van der Rohe. It is also the place in the world with the highest concentration of Mies buildings. Conceived as a void in a dense urban context his campus has become part of the legacy of remaking of American cities through modern urban design principles and urban policies. Mies design intentionally inverted both the fabric of the nineteenth century city and the quadangular neo-Gothic campus of the University of Chicago. While IIT campus served as prototype for the design of modern institutions within the postwar urban landscape in America, the areas most affected by this was the neighbouring environment. This prototype to rescue the postwar American city had three main elements: the razing of the existing buildings to create a cleared ground for new development, the lack of adherence to the street wall and the treatment of each building as an object unto itself.

Despite the promises made by the modern designed campus in the name of urban renewal the campus remains stagnant in a struggling urban neighbourhood. The spatial concept of the IIT plan started to duplicate itself endlessly, leading eventually to building the Americas largest assemblage of high rise public housing projects. In 1941 when the campus opened there were 6000 students on 57 acres. By the mid 1990's there were only 3200 students on 120 acres. In 1995 new vision for the campus resulted in a master plan recommending new campus facilities, the renovation of the mid century campus, the provision of new student housing and facilities and stronger physical connections to the surrounding neighbourhood. The best known was the new McCormick Tribune Campus Centre by Rem Koolhaas/OMA.

If the quality of Mies original plan was to be a void in an urban condition OMA's plan and answer to the spatial problem of the campus was to be urban condition in the void. Koolhaas, "...the true crisis of IIT is not it's relative neglect but the disappearance of the city around it, Chicago." The buildings urban qualities work best in it's interior. "Rather than simply stacking program, OMA treats the building like a small city and spreads activities and services across the site in low block-like groupings linked by internal avenues." Urbanistically the building calls attention to itself through a tube like structure above containing the noise of the subway tracks whilst functioning like a signal for the campus.

Campus without Boundaries

OMA's new student centre plus the added student housing from Helmut Jahn expands and heightens the experience of student life on the campus through entertainment, dining, meeting, and convenience facilities. This expansion of student life is in this context one of the best ways in dealing with the spatial and social void left over through modernist campus thinking. Through this additional interventions at IIT, the campus and the city are simultaneously present.



UNPLANNED WEDDING

Harvard University, Cambridge, USA

Harvard University is a private university located in Cambridge and Boston (Massachusetts), which was founded in 1636, being the oldest institution of higher learning in the United States. It is considered to be one of the most prestigious universities in the world, apart from having the largest endowment of any academic institution in the world. Harvard's main campus is centred on Harvard Yard in Cambridge, northwest of downtown Boston, and spreads into the surrounding Harvard Square neighbourhood. The campus is completely integrated in the city, and spreads like a virus inside the city (inner-city campus). The current campuses are an integrated part of the city with which they share sport facilities, parks, squares, streets, not being able to distinguish a straight borderline between the city and the campus. Both share uses like commerce, facilities.

Unlike the post war university campuses which escaped the confines of the city to establish a whole new 'isolation space' to the campus experience, Harvard consistently outranks all its competitors through not only topping the list of the best universities to study but also the most popular reference as the best campus to emulate. But how do you copy something that was in fact 'unplanned'? Harvard's eclectic architectural mix of 660 buildings helps to explain this. Its values, its academic priorities, its responses to new teaching methods, its desire for stronger collaboration, its embrace of the urban environment, and its ongoing flexibility are represented through its architecture. Starting in 1636, Harvard officials decided structure by structure what to construct.

This idea for cross-fertilization and collaboration between different disciplines are extended in Harvard as a series of 'unplanned weddings' between old buildings and new buildings, the campus and the city, the campus and the user and, user to user. Chance meetings happen through chance spacing or 'opportunity spacing'. This can be seen in the tight-knit closeness of the University's structures, the breadth of their styles, the pocket greenery, the public square at Harvard's core make it an unusual campus, one where faculty and students have to interact regularly. Through the centuries, campus planners chose not to fully enclose the Yard like the cloistered designs of their predecessors in England, the universities at Oxford and Cambridge. Instead, the planners left gaps, allowing those passing through to see 'something else' through consistently walking in a diagonal.

Can Harvard be copied? Attempts to plan the extension of Harvard to the other side the river in Allston are underway. The idea of the expansion is not only for improving the campus but also the community and the city in general as the campus wants to keep being part of the city through public streets, squares and parks. The campus is thought to be a city building project, an institution within the city where city and campus share shopping, housing and transportation. "The future intellectual direction of Harvard will be linked to its physical planning and architectural path," says GSD Dean Mohsen Mostafavi. "When there is more and more discussion around collaboration and trans disciplinary practices, the question is: What kind of space do you need for that work?" he added. "New kinds of research means new kinds of juxtapositions, and will require certain negotiations between schools. It will be important to explore how buildings and architecture can help set the stage for these future collaborations.

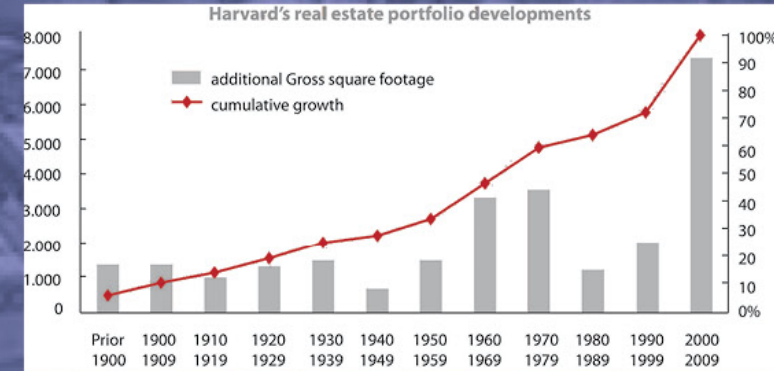
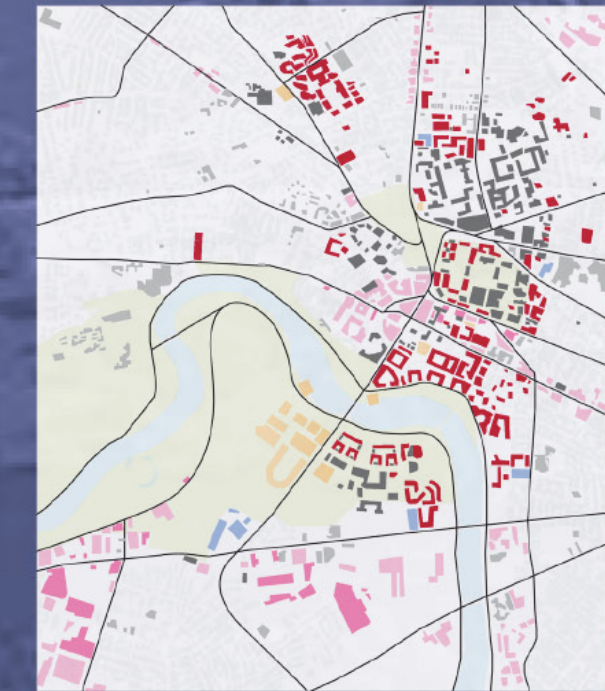
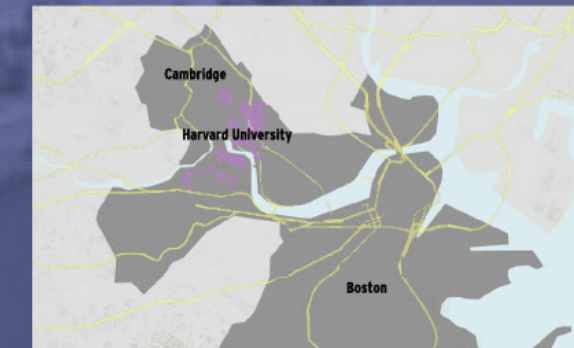


Diagram based on 'Managing the university campus' by Alexandra den Heijer



DESIGNERS DREAM

Novartis Campus, Basel, Switzerland

Novartis is aiming to transform the St. Johann site - its headquarters in Basel - from an industrial complex to a place of innovation, knowledge and encounter. The new Campus should offer Novartis employees and visitors an environment for intensive levels of communication and work, which is ultra-modern, very functional and aesthetically pleasing. The master plan on which all these changes are based is by Vittorio Magnago Lampugnani. The individual special buildings are to be designed and also realized by invited high profile architects like, Herzog and de Meuron, Frank Gehry, Alvaro Siza, Rem Koolhaas, Tadao Ando Peter Märkli, Diener & Diener and Japanese office SANAA to name a few.

The campus is currently under transformation, and in the past was formed by a sum of office, research and factory buildings in the middle of railway tracks and warehouses. The campus is organized according to a grid structure that reminds of the original factory complex and also the ancient Celtic settlement that existed at the area. Apart from this identification to the history, there is also a relation to the orientation and efficiency. The intention of the new plan for this corporate campus is to create a more urban atmosphere where the offices are also surrounded by shops, restaurants, leisure facilities, squares, green areas in order to create a real interaction between the city and the campus, which helps turn the campus into an ultra modern research, development and management centre. The concept is 'city-within-a-city' concept, where there is a nice environment with all the elements a person can appreciate in a city. According to the author of the master plan, Magnago Lampugnani, the ideal place for people to come together is the city, therefore, the campus must be like the city, and contain all the pleasant things which are in it.

Only those buildings are to be demolished that are obsolete; however if they are demolished, they are without exception to be replaced with building corresponding to the master plan. Novartis campus is an urban structure that consists not of blocks but rather of individual buildings at a scale that can be suitable for office buildings and laboratory buildings. There is also an intention of making as self-sufficient as possible. Only obsolete buildings are being deconstructed (not demolished) in an environmentally way, materials are separated and then are being recycled or reused (80% of concrete is being recycled).

Unlike some of the failed utopian modern urban designed projects of the past, Novartis has no social or spatial problems to solve in or even around their site. Rather they use the campus model as an urban and corporate strategy to transform a site over time through high quality design. Not through a tabula rasa approach but through an very strict building codes between old and new buildings. The plan is designed for the long term that will take at least 30 years to complete. Moreover through including renowned architects in the campus will make it also function like an architectural attraction to the city of Basel with guided tours. A designers dream campus, just like Vitra.

NUMBERS

State planning versus planning the stateless, Guangzhou, China

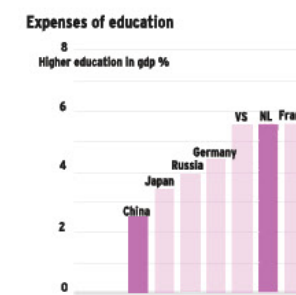
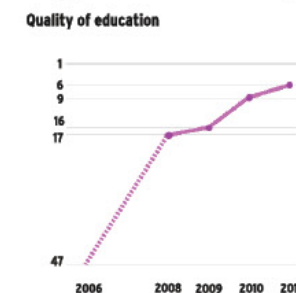
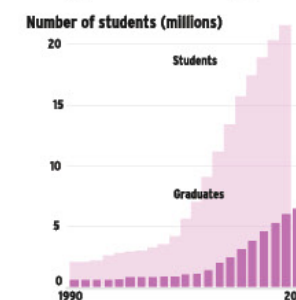
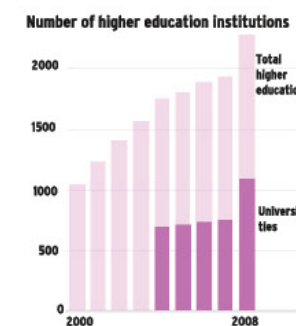
The layout of Guangzhou University City is based on several ideas that organize the main principles as Transit-Oriented Development, the structural concept of "Cluster Growth", the functional concept of "Network Organization", the design concept of "Ecology First" and "digitalized" virtual city. The design is organized by multiple nodes along the main axis, keeping the existing water bodies. The road layout and the land use structure of the plan organize the location of the major open spaces that serve as connecting elements of the different clusters. This integrated design approach ensures an environment of rich variety, where different urban settings are developed with a strong sense of place given by the particular qualities of the site and the natural landscape that defines it. Another aspect is the idea of preserving wide sections of the river coastline as open spaces, which will help in the possible deterioration of the ecological corridors of the Pearl River."

The pearl river delta was the starting point of the Chinese experiment to combine communist state planning with capitalist enterprise that led to the revival of the Chinese economy. The experiment turned out to be a huge success. In the last 30 years relying on Hong Kong money and the inexhaustible supply of cheap labour the pearl river delta in general and Guangzhou specifically quickly became the factory of the world. Unlike many of us think, politics in china are regionally based with stiff competition between the different larger cultural / economic areas moderated by the state. Things have changed since then, the delta is getting old surpassed by other areas for example around Shanghai and Beijing. The goals set in the future to get the delta back on top are ambitious. The old production based economy has to be replaced by a knowledge based economy ready to compete not only with other regions but also with the rest of the world in innovative high end products.

Large areas will disappear over night to be replaced by new living areas attractive enough for highly educated workers and international companies to settle. New facilities, more offices and to create the new working force; new universities will appear. It is this ambition that makes it possible to plan the rebuilding of the pearl river delta. The newly build campus city of 10 universities in Guangzhou is one of the many build in china in the last 10 years and not even the biggest.

There is an interesting difference in thinking behind this development compared to the west. Our "free" world is based on a slowly developed balance between exploitation of human powers (by companies for instance) and the individual rights of citizens (to vote or strike). This contrast of interest seems to be absent in China, or in any other east Asian country for that matter. Everything is in the interest of the collective, the individual pursuit is not happiness but money. If the western way is to develop the human capacity of the individual through education, in China it is the state that plans the educated work force for future developments. In Europe universities are horrified by the idea of private companies interfering in higher education, in China this is the exact aim. Government, universities and companies all strive for the same goal; to be able to compete with rest of the world in our global economy.

China builds more schools for higher education and scores higher in the rang list but is behind in providing jobs for university graduates.



Source: National Bureau of Statistics of China, FT, Unesco



IDENTITY

Village Campus University of Gambia

...."Bantabas is the name, which is used for a large tree, which was called Bentennie in the Mandinka language and is a traditional meeting place for the men of the village. The origins of the word is from the Mandinka for tree which is "Bant" and "aba" means "where to meet" and so the 2 words combined says Bant-aba, the equivalent of a gazebo. Early in Gambian history the big tree formed the basis and foundation of the village. Due to its natural shade it became an obvious meeting place for men to get out of the stifling sun and heat of their huts during the day. This is where they discussed issues that were pertinent to the village such as ceremonies or communal works. Today, it is used to describe any wooden or cement construct which is located within the confines of a family compound or other property with a roof made of grass or corrugated iron sheets with pillars made of wood, bamboo or concrete. The structure itself has no walls and resembles a gazebo"...

Initiated in 2008 by the President of the Gambia, the new University of the Gambia, a design by Snøhetta, is a relocation and integration of four small existing universities. The new campus is situated on the outskirts of the city Serrekunda. The master plan of this project is a series of "modular" faculty building set in an open fabric. It has the flexibility to build new facilities in the future and to connect with the planned expansion of the city called "Green River", incorporating two existing villages; Pirang and Faraba Banta.

The proposal for the Gambia university campus seeks to find an alternative to a globalism that leads to universalism. If the European greenfield model from the 60's to escape the embrace of the old city, the Chinese brown field model is to eradicate history to be able to step into the future, this strategy seeks to connect the future to its own culture, a globalism that finds a local identity in the roots of its own culture, an African university village designed by a Norwegian office,

The layout of the campus is based on the analysis of the traditional Gambian Bantaba settlements. Its aim was to find a direction that makes the campus different from the existing western campuses and to incorporate the Gambian traditions in a new way. These main concepts are based on the African fractal which set the different faculty buildings, the green structure and the out door meeting places set in an hierarchy through "Bantabas", "compounds" and atriums. The new campus includes housing for students as well as other typical program belonging to a city. The development sets an example for solving the environmental problems in Gambia with the establishment of a solar park to supply the energy, guaranteed clean water and using waste for the local power plant.



Higher Education in the Netherlands

Higher education in the Netherlands is offered at two types of institutions: universities of professional education (hogescholen; hbo) and research universities (universiteiten; wo). The former comprises general institutions and institutions specialising in a particular field, such as agriculture, fine and performing arts, or teacher training; the latter comprises general universities and universities specialising in engineering and agriculture. MBO is a senior secondary vocational training and is often a stepping stone toward HBO.

Higher Education in the Netherlands

The wo (wetenschappelijk onderwijs; literally, “scientific education”) is only taught at research universities. It is oriented towards higher learning in the arts or sciences. After the bachelor’s programme (typically 3 years), pupils can enrol in a master’s programme (typically 1-2 years) or enter the job market. There are three technical universities, an Open University, six general universities and four universities with unique specializations in the Netherlands, although the specialized universities have increasingly added more general studies to their curriculum.

The hbo (Hoger beroepsonderwijs; literally, “higher professional education”) is oriented towards higher learning and professional training. After hbo (4-6 years), pupils can enroll in a (professional) master’s programme (1-2 years) or enter the job market. The hbo is taught in vocational universities (hogescholen), of which there are over 50 in the Netherlands, each of which offers a broad variety of programmes, with the exception of some that specialize in arts or agriculture. Note that the hogescholen are not allowed to name themselves university in Dutch.

Secondary vocational education (MBO) is together with the strong adult foundation of the Dutch economy and society. 40% of our workforce has an MBO diploma. Every year nearly 600,000 people opt for one course at one of the 71 Regional Training Centres (ROCs), agricultural training centres (AOCs) and course settings.

The MBO Council is the trade association of the education in secondary vocational and adult education.

In the MBO Council, all 71 schools in the vocational sector are connected. The MBO Council represents the interests of its members, provides services to educational institutions and supports an innovative way their common activities.



14 Universities in NL

- Distant learning university
- Agricultural university
- Technology university



Locations

Source: CBS 2010

14 Universities in the Netherlands:
205,000 students
50,000 staff

4.5 million m2 gross floor area
16 km2 land property
1200 buildings

Campus without Boundaries

62



Numbers

- <5.000
- 5.000-10.000
- 10.000-15.000

- 15.000-20.000
- 20.000-30.000

51 HBO institutions in NL



Locations

Source: CBS 2010

51 HBO institutions in the Netherlands:
394,000 students
38,000 staff

Unknown m2 gross floor area
Unknown land property
Unknown buildings

63



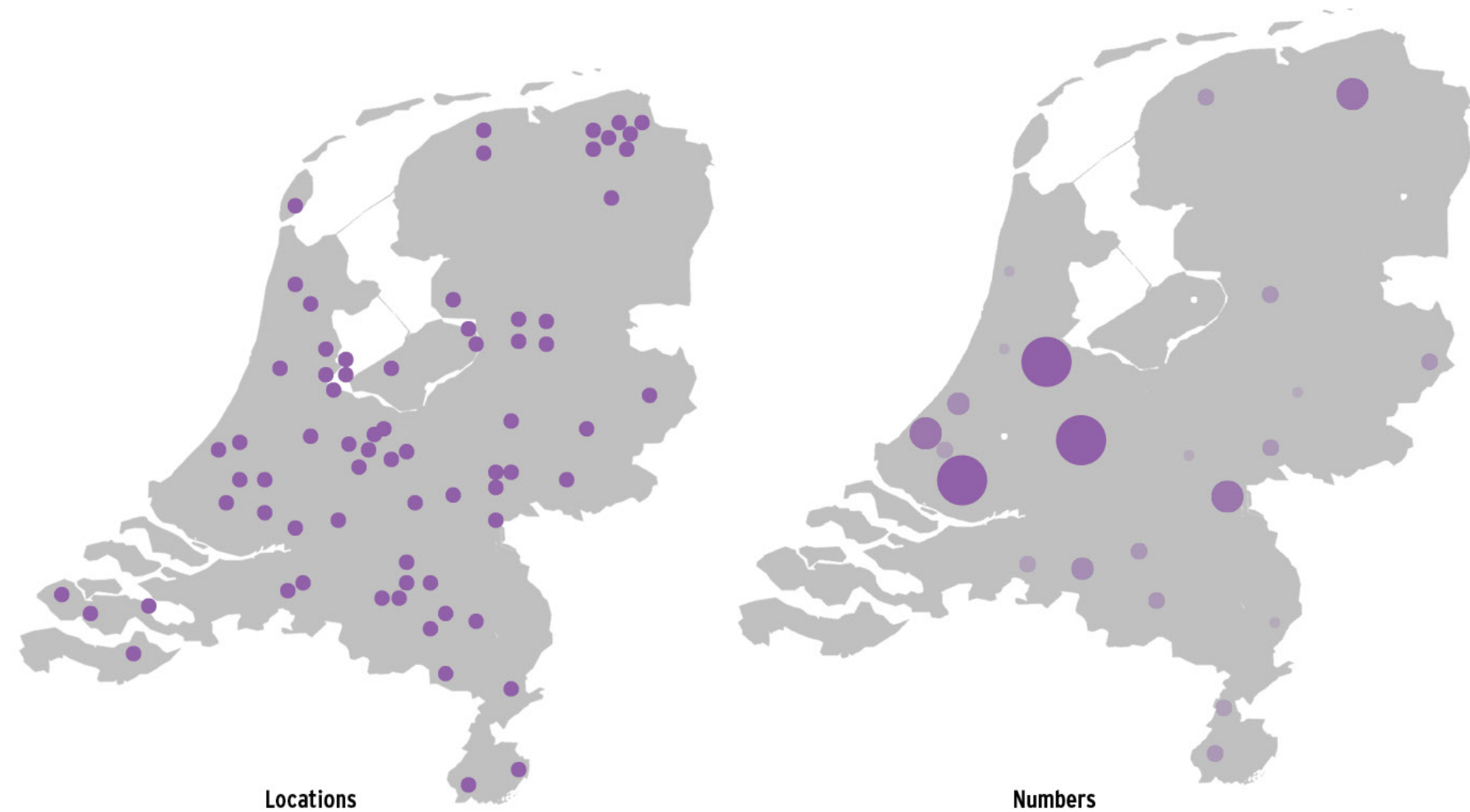
Numbers

- < 5.000
- 5.000 - 10.000
- 10.000 - 15.000

- 15.000 - 20.000
- 20.000 - 30.000

Campus without Boundaries

71 MBO institutions in NL



Source: CBS 2010

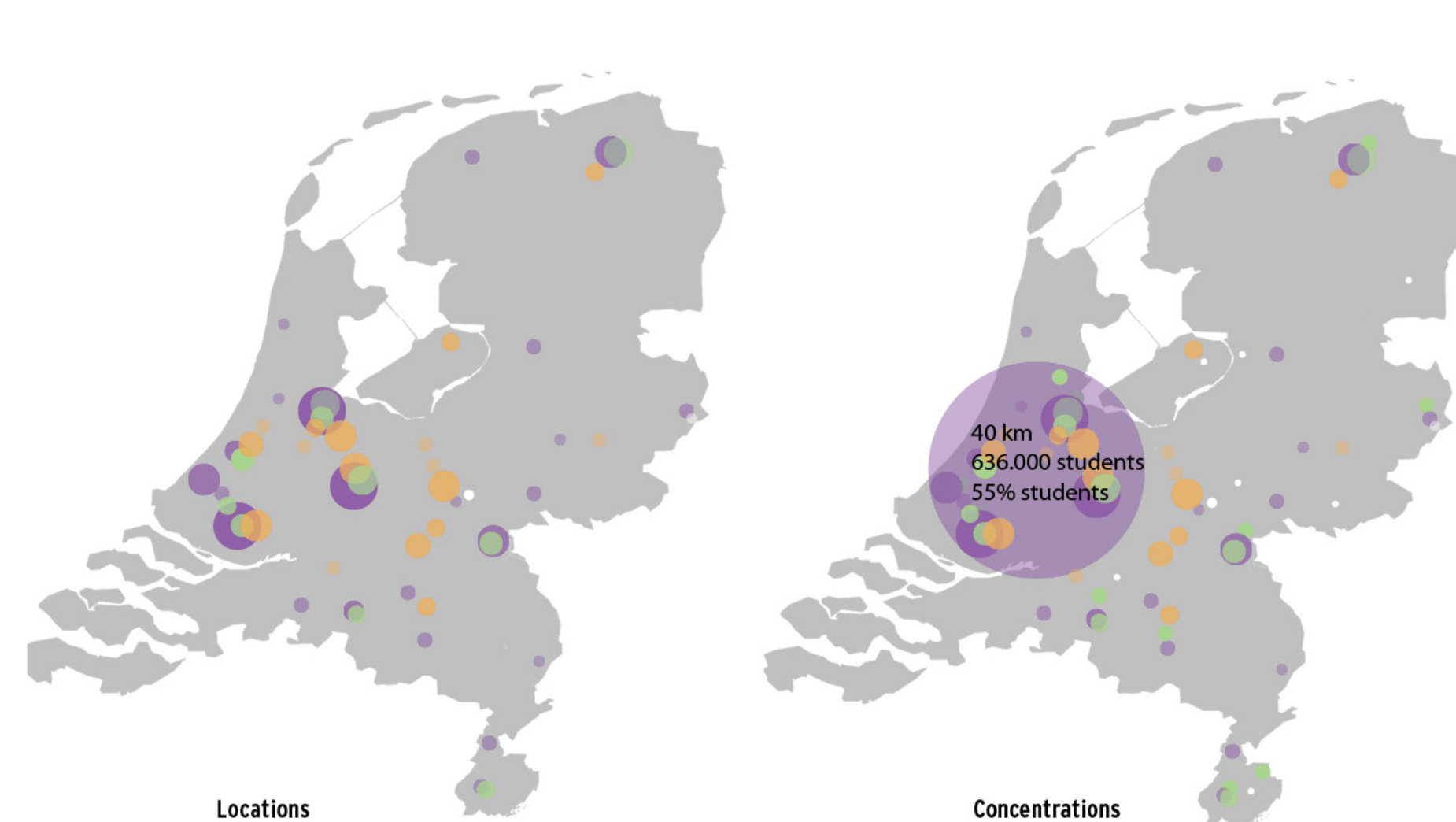
71 MBO institutions in the Netherlands:
537,000 students
50,000 staff

Unknown m2 gross floor area
Unknown land property
Unknown buildings

Campus without Boundaries

64

Universities+MBO+HBO



136 institutions in the Netherlands:
1,157,000 students
138,000 staff

Unknown m2 gross floor area
Unknown land property
Unknown buildings

65

Campus without Boundaries

Educationomics

For attracting knowledge workers the municipality and knowledge institutions can join forces. The role of the university as a provider of jobs in a city - not just knowledge workers, but also many jobs in the supporting service sectors - is often underestimated. Universities are usually one of the bigger or biggest employers in the city, have a spin-off in the form of new enterprises and attract other knowledge-intensive organisations

Wisemma, 2009
out Managing the University Campus. Den Heijer, 2011

The percentage of students reflect the importance of education as a social and economic engine for the city. The city needs the campus and the campus needs the city. An open and integrated campus with the city are where there synergies need to be discovered. There is over the years a fluctuating proportional increase of number students in the Netherlands according to the types of education, and the amount of the money invested in education by the government.



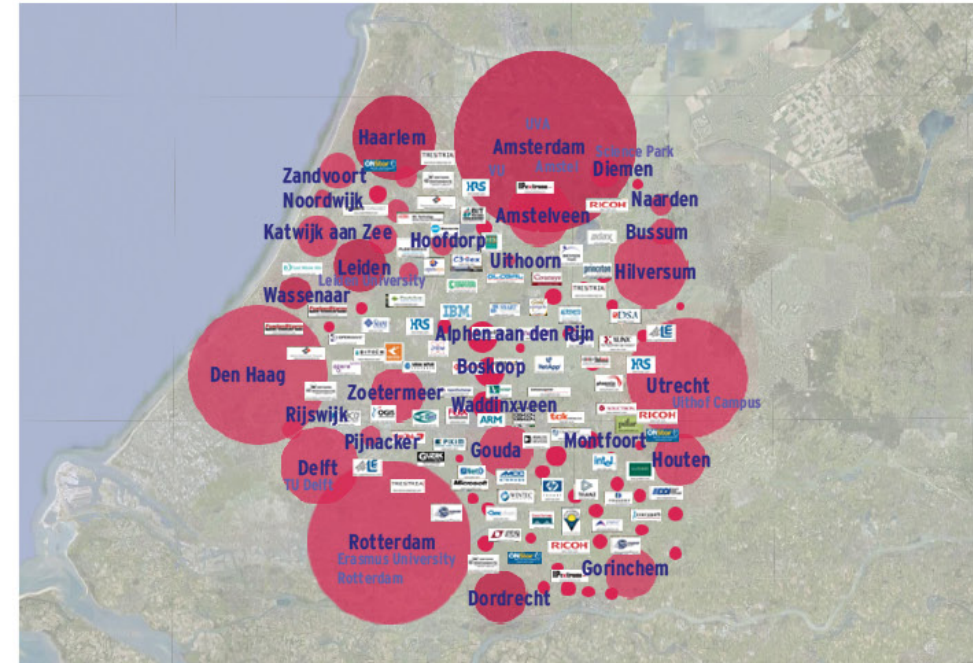
There are 1.157.000 students in the Netherlands....

Educational Landscapes

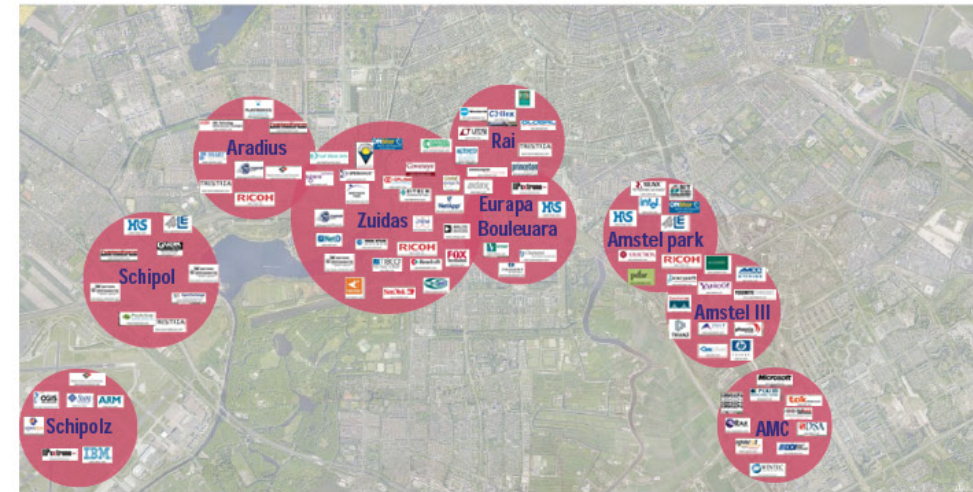
The most widely distributed level of education in the Netherlands are the MBO's. Their distribution is more or less equally distributed throughout the country.

Foremost are the HBO's and Universities that are placed more in the centre of the Netherlands in the Randstad. This is where the most knowledge based industries are located. Through the three institutional levels we could highlight that more than 55% of the students in the Netherlands are inside the area of Randstad, considering it as the radius of 40 kilometres including the main cities in the Netherlands like Amsterdam, Utrecht, Rotterdam and Den Haag. This area formed by university campuses, research parks could be an extrapolation of the concept of Silicon Valley in the Netherlands with all the economic potential that this can mean.

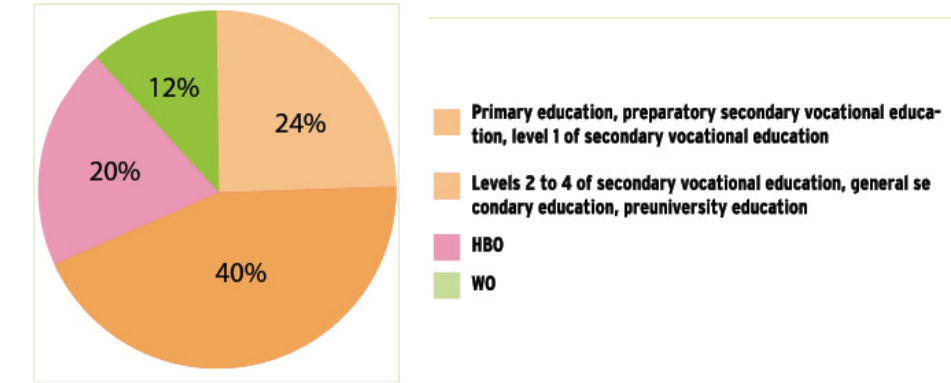
Can we develop a language of the campus more like a landscape? The Educational Delta's? Knowledge Coasts? Innovation Polders? Randstad Valley? Amsterdam's own economic banana?



Randstad Valley

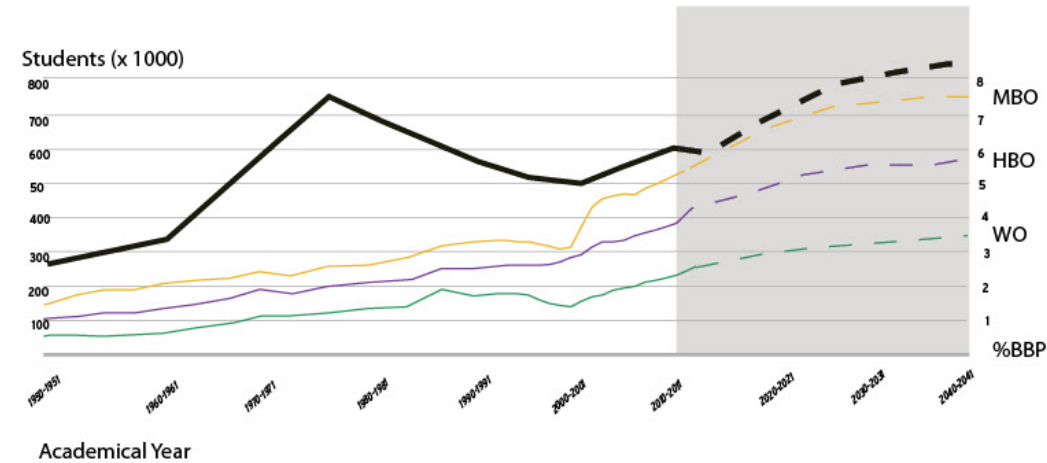


South Flank Amsterdam

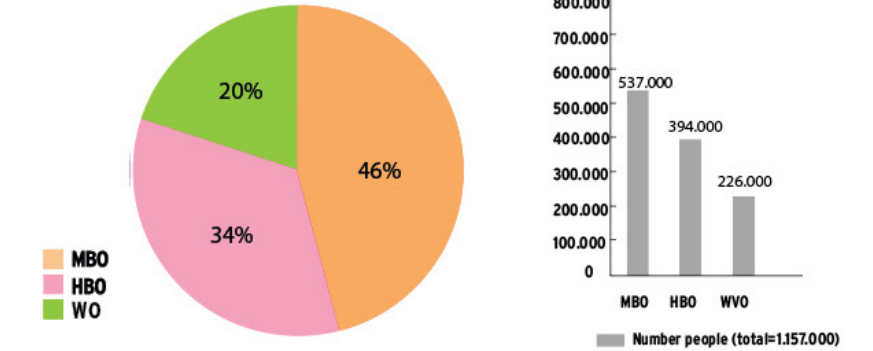


Level of education of the working population

Source: CBS 2010

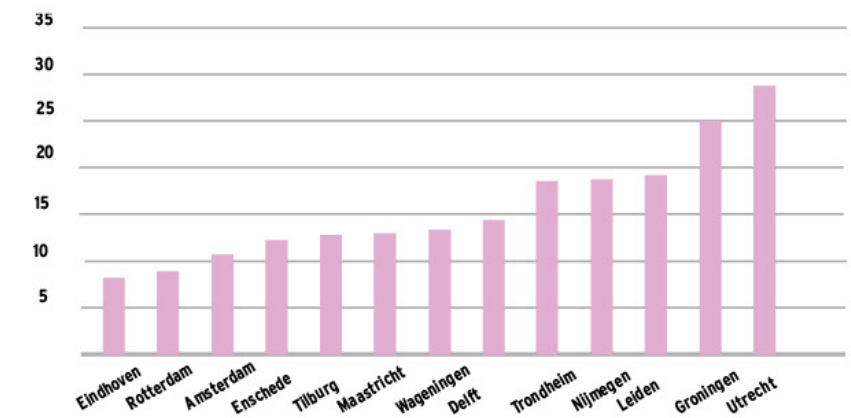


How many more students can we expect in the future?



Current number of people according to type of education

Source: CBS 2010

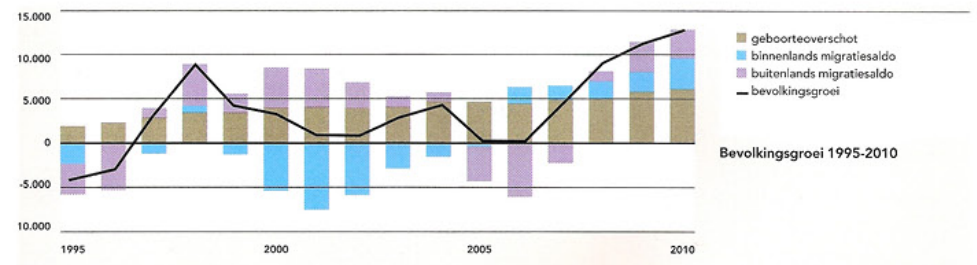


Percentage of students according to city population

Amsterdam 2040

Due to increased local and global mobility patterns, changes in education (and students) are seeking new types of buildings, new types of alliances, cross disciplinary interaction, proximity and social networks. This will put the pressure on school institutions and cities to have a clear spatial agenda about these developments. A new Metropolitan school concept?

Amsterdam is busy developing a long term structure plan as a internationally competitive, sustainable, european and top metropolitan city. Amsterdam needs to plan beyond it's own boundaries. The metropolitan scale positions Amsterdam as a regional core for a much larger urban conurbation of 2.2 million to 2.5 million inhabitants. Through this scale jump the city can expect not only more inhabitants but more (types of) users staying longer and more frequently. "Structuurplan 2040" is a report that outlines this growth and transformation within four development scenarios but at the sametime does not include changing patterns in education as an instrument for urban planning and transformation.



Source: Structuurvisie Amsterdam 2040 dRO Gemeente Amsterdam 2011



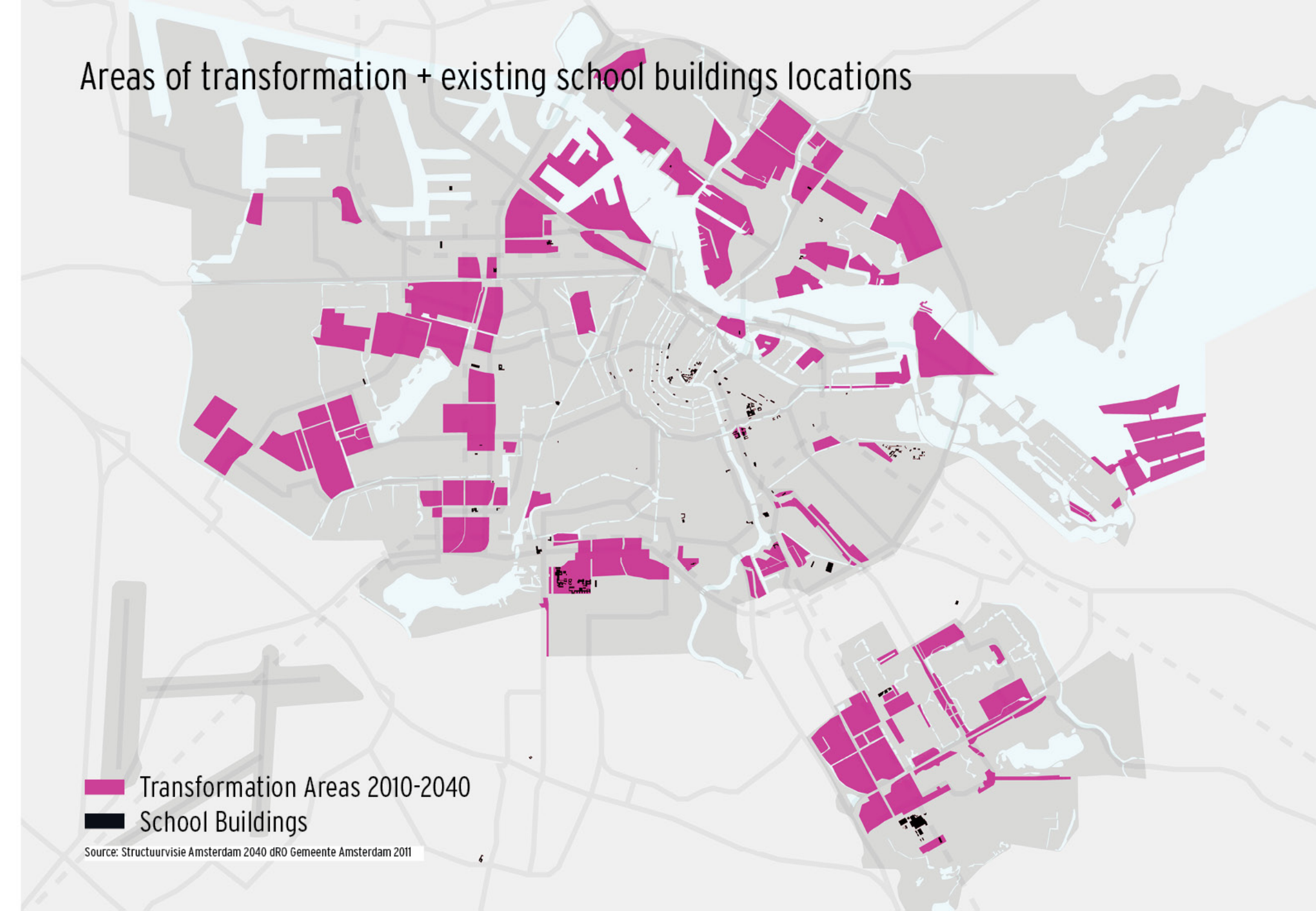
Amsterdam Metabolism

According to the Structure Plan 2040, Amsterdam in the next 30 years is expecting only 100.000 to 150,000 new inhabitants, 70.000 new dwellings and 300.000 m2 of extra social amenities. If we were to see the Structure Plan as a dynamic process of change through breaking up the city into smaller parts, this growth can easily be realized in the areas marked for transformation. More change through less growth.

The transformational process of Amsterdam can go hand in hand with the smallness of its individual elements. Land turns into house, house turns into shop, shop turns into office, office turns into school, office gets demolished, houses move back in, parks grow between the parts. The question is where will this happen?

A landscape of individual proportioned zones, with seasonal components and where use is dependent on circumstances. **Start Small and Use More.**

Areas of transformation + existing school buildings locations

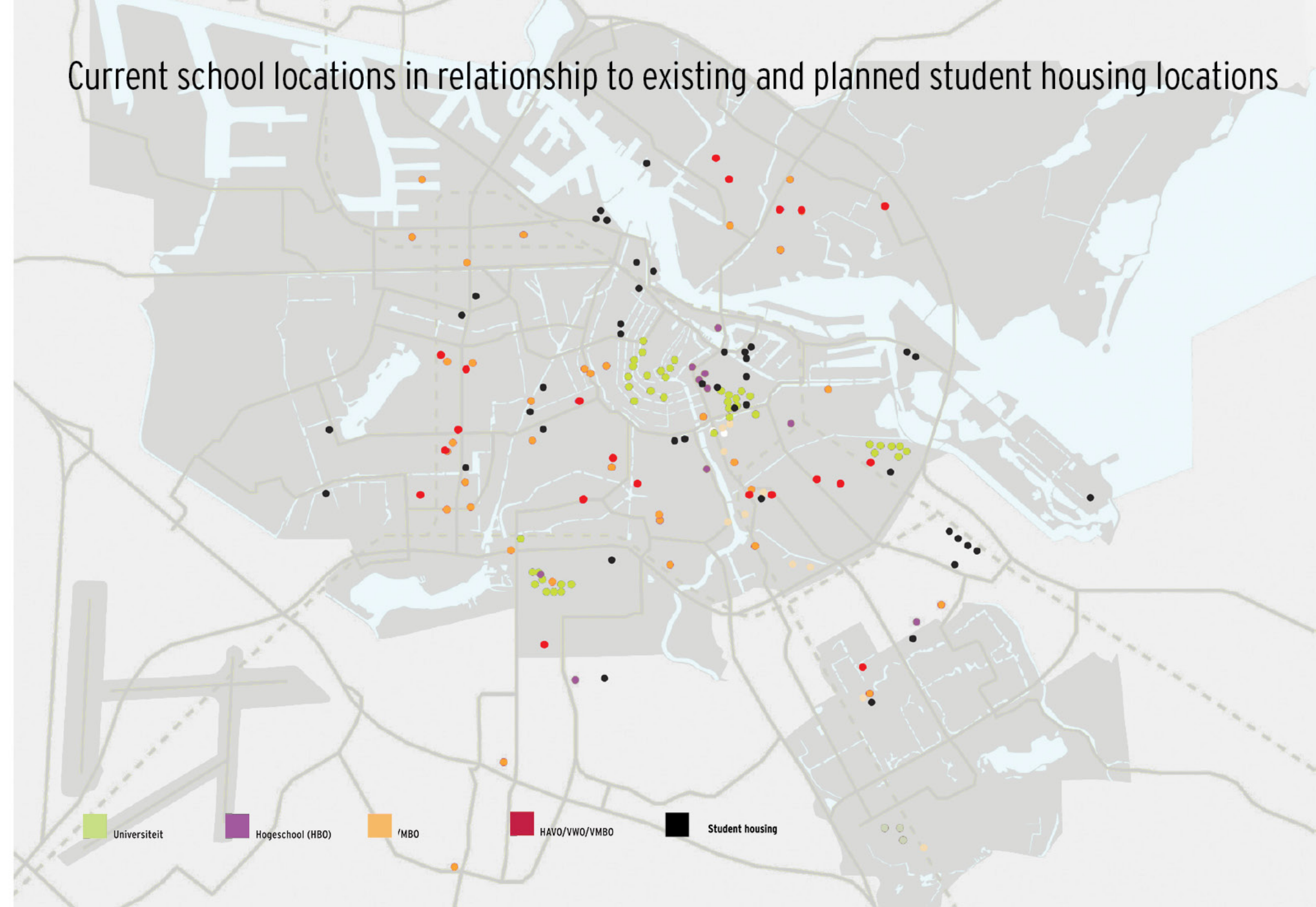


School buildings

A quick overview of the current and future plans of educational buildings in Amsterdam show that educational institutions are planned more or less independent of each other. If one was to map the planned location of student housing and eventual small business start-ups, the spatial planning begins to take the shape of a cloud. Is it not more productive to concentrate this spread out growth planning into more specific knowledge based communities?

Current planning practices has yet to be explore mixing educational schools at various levels with amenities, shared facilities, housing and small scale start ups to explore more specific types of innovation environments for the emerging knowledge economy. A strong characteristic of this knowledge economy is the mobility of the students from high school level to University level in the educational market. Due to this increased mobility of students both at a local and even international level, an opportunity exists to start to concentrate, overlap and combine resources to optimise operations and trigger spin-offs that yet to be discovered or detected in the educational cloud. Seeing educational space as a question of urban design will be about turning these cloud formations into crowd formations. What is missing is research that locate all the resources and educational facilities into one map in order to explore the potential for new synergies and overlaps.

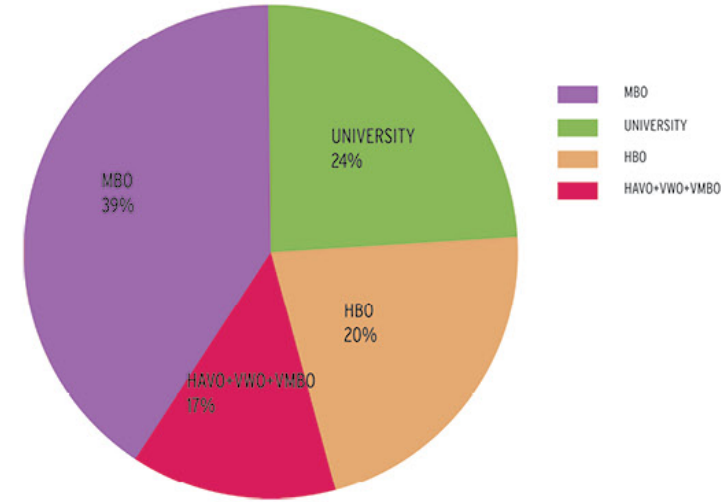
Current school locations in relationship to existing and planned student housing locations



Student Numbers and Proportions:

Amsterdam 2011

Total population: 762.057 inhabitants
Greater urban population: 1.364.422 inhabitants



University

2 Universities in Amsterdam
53563 university students
9096 staff

HBO

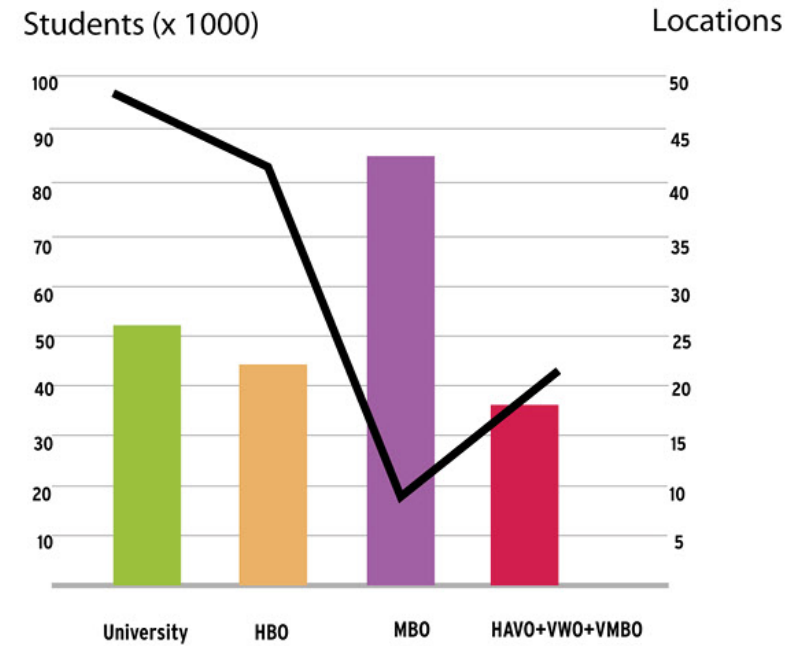
21 HBO institutions in Amsterdam
44040 HBO students

MBO

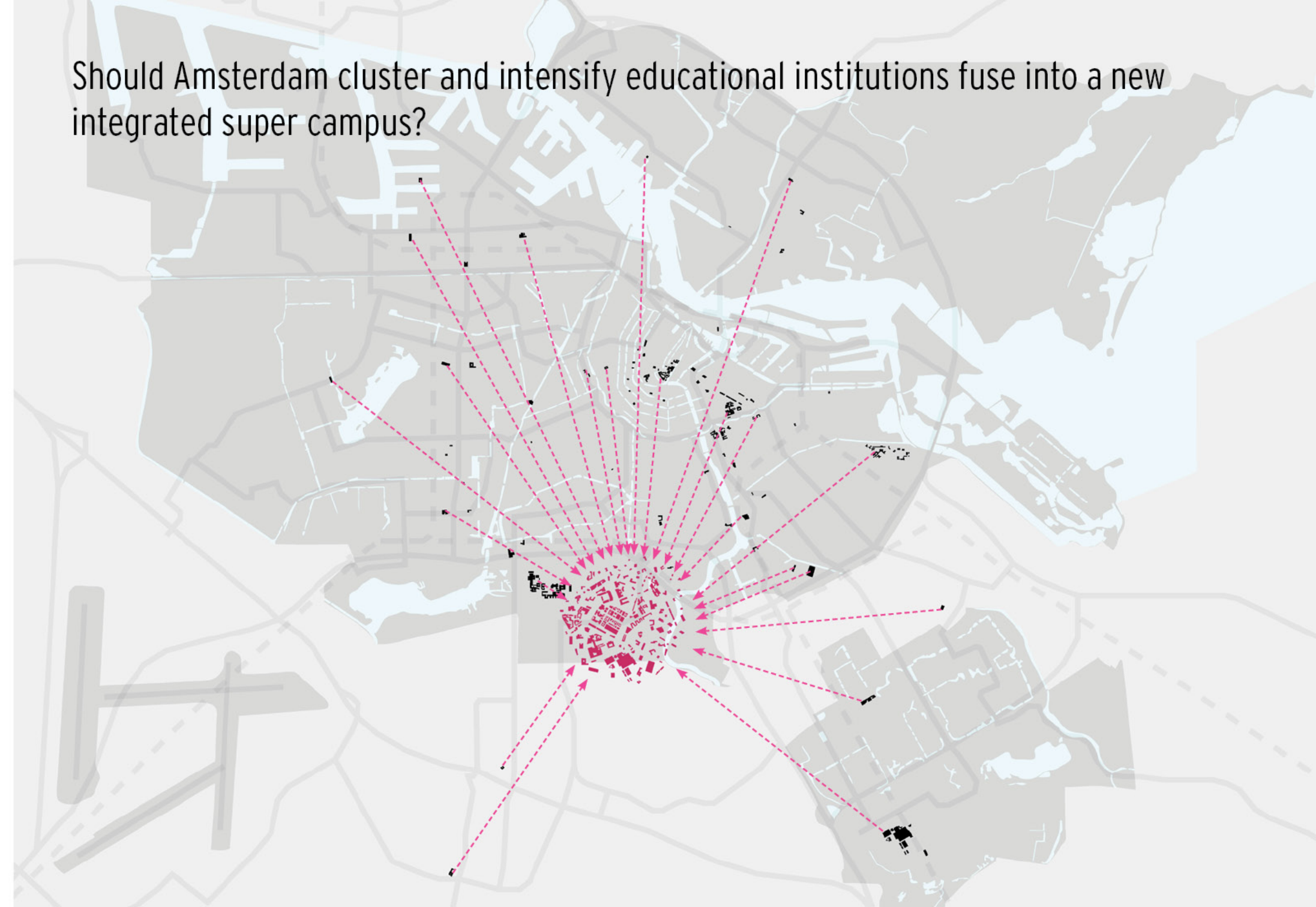
10 institutions in Amsterdam
84500 university students

HAVO+VWO+VMBO

70 institutions in Amsterdam
38500 HBO students



Should Amsterdam cluster and intensify educational institutions fuse into a new integrated super campus?



VU: Kenniskwartier



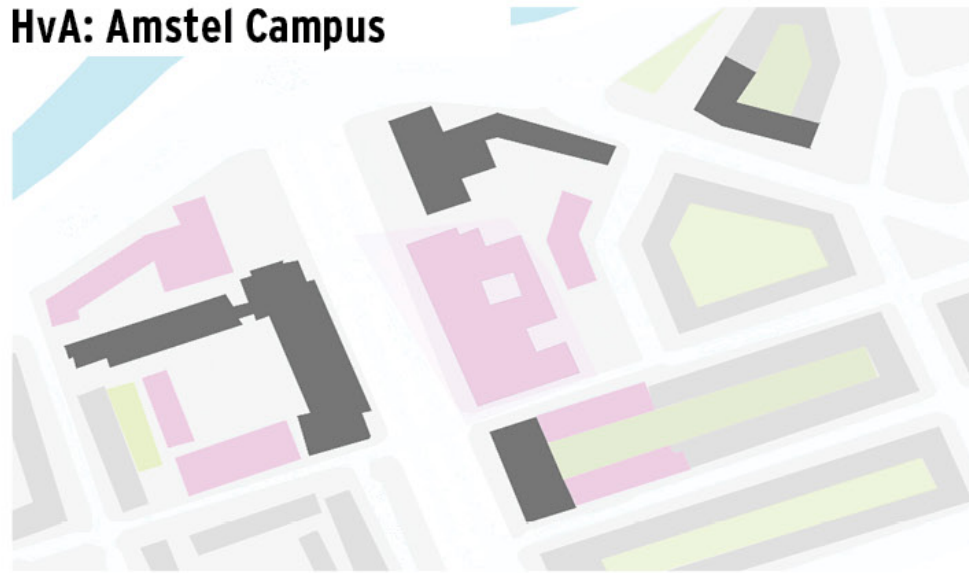
- Vrije Universiteit
- Hogeschool in Holland
- Sport Facilities
- Offices + Dwellings
- Cultural + Commercial
- Offices

UvA: AMC



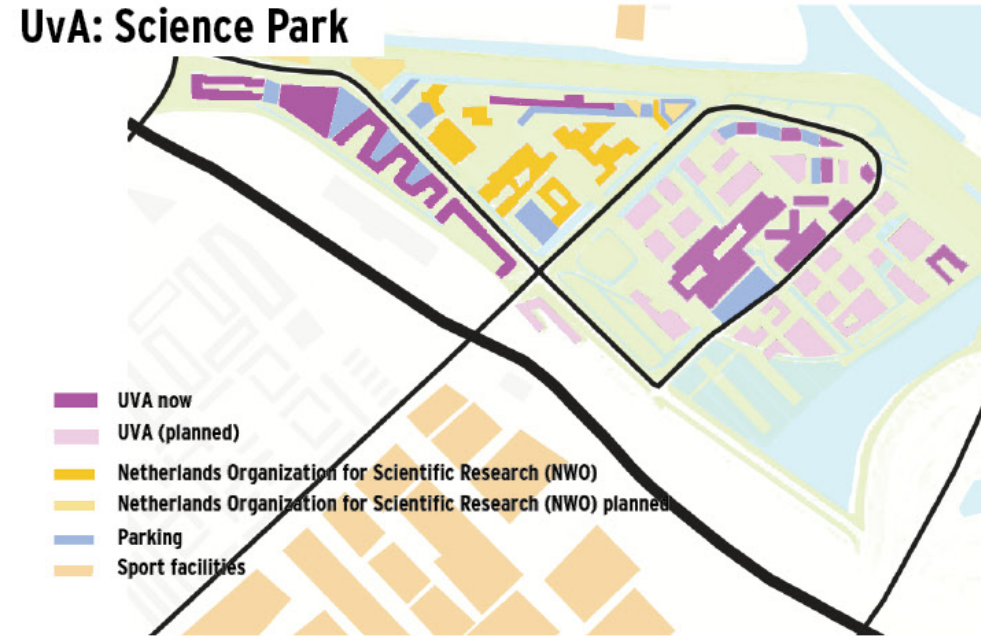
- HVA

HvA: Amstel Campus



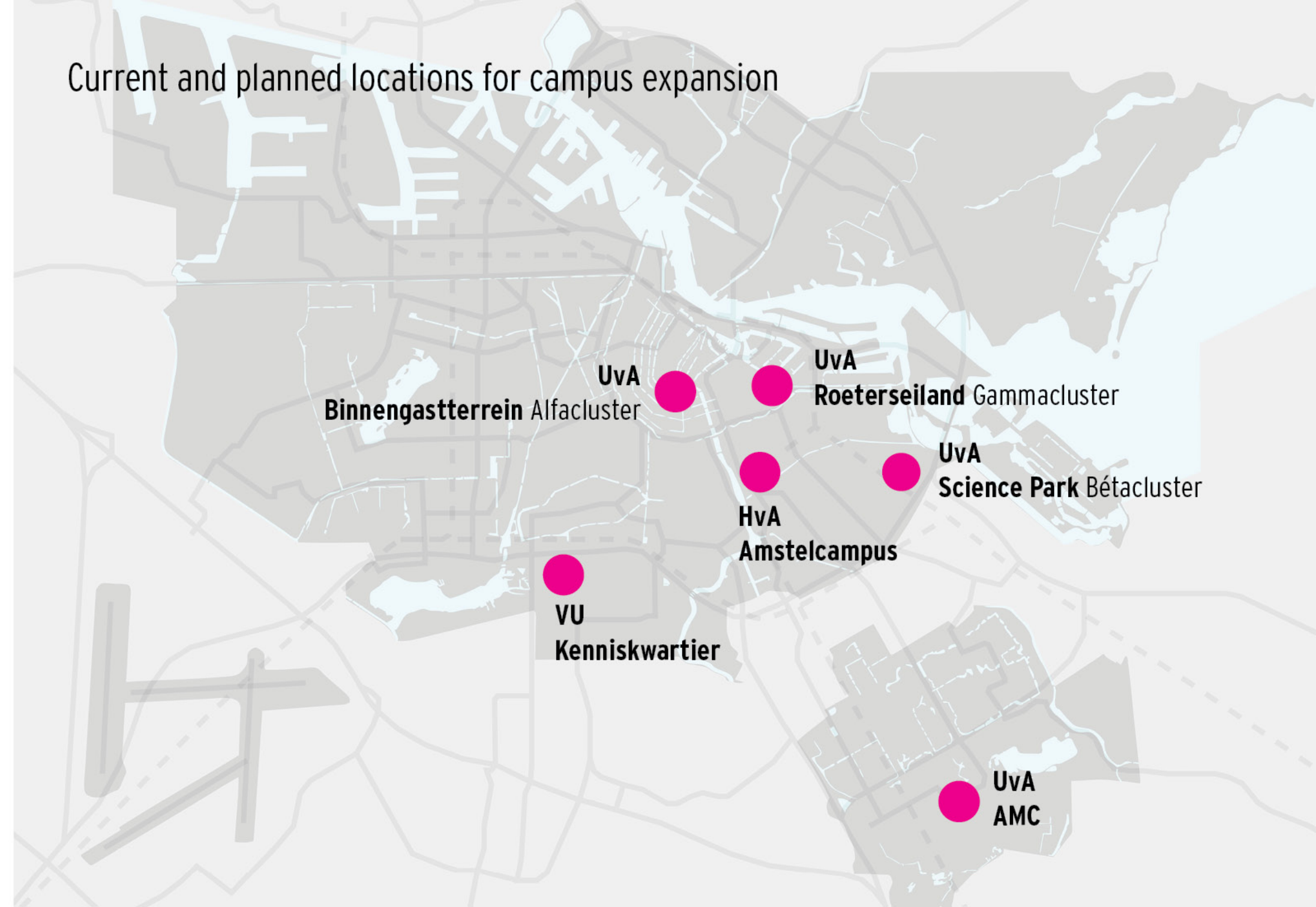
- New constructions
- Renovation of existing buildings

UvA: Science Park



- UvA now
- UvA (planned)
- Netherlands Organization for Scientific Research (NWO)
- Netherlands Organization for Scientific Research (NWO) planned
- Parking
- Sport facilities

Current and planned locations for campus expansion



- Binnengastterrein** Alfacluster
- UvA**
- UvA Roeterseiland** Gammacluster
- UvA Science Park** Bétacluster
- HvA Amstelcampus**
- VU Kenniskwartier**
- UvA AMC**

Campus urbanism

Can the campus cluster be an answer to the dramatic increase in students and size of educational buildings in the future of the city?

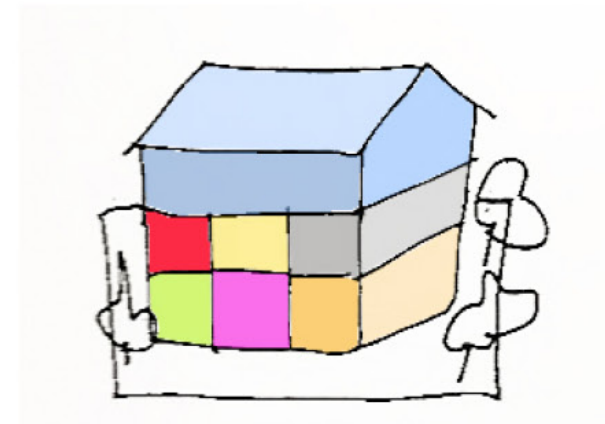
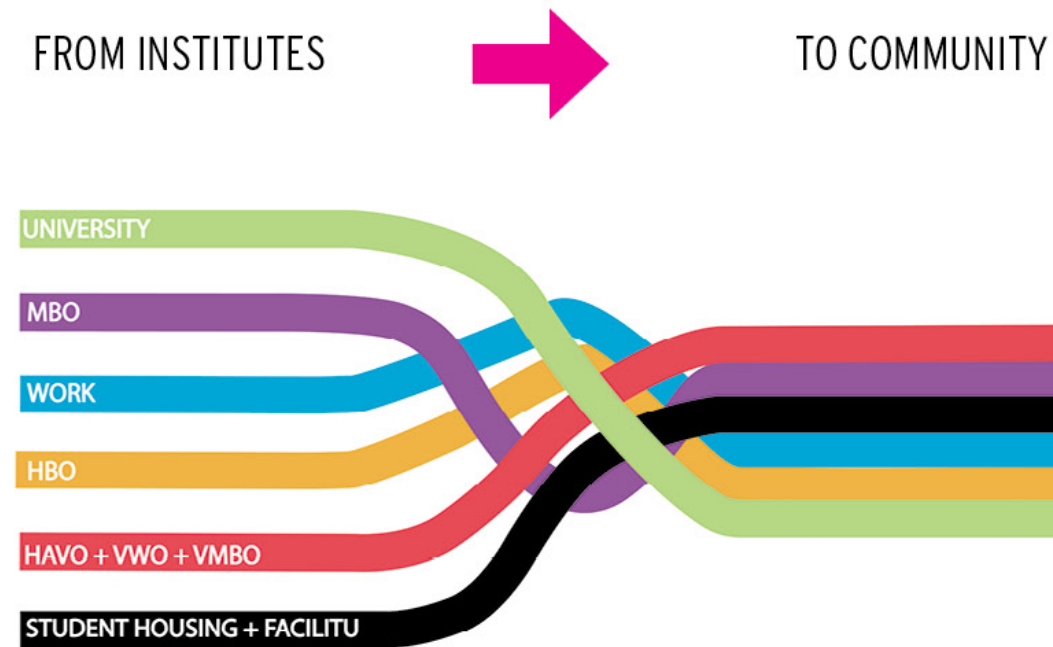
The clustering of social amenities and the involvement of private parties in the realisation of social buildings in the Netherlands and abroad has been a trend for quite some time now. Changes in social services and education methods in combination with child care due to flexible working patterns of parents have meant that particularly lower level schools have been developed as 'bredescholen' and multifunctional accommodations (MFA). The debate about how big school buildings should be or whether we should be mixing so many functions together in one large building has yet to be conclusive.

But the question is not whether we should make multifunctional school buildings or not, the question is why are we not clustering, even more schools, functions and student accommodations, in better ways and in more places? Why are we not planning at the scale of the city, educational complexes as open communities? As an urban intervention distributed and concentrated in specific locations to create both positive social and innovative economic spin-offs? Why are we not clustering schools, accommodations, facilities and work places as a new type of a urban and architectural project? A metropolitan campus (MFC)?

The future of school buildings is not to make them larger through mixing more program but to plan them as urban conditions that can grow, change and adapt itself as a large scale intervention of smaller parts. This new '**scale up size down**' campus cluster would provide functions that go beyond the traditional definition presently used in university building settings. The need to cluster even more schools and functions together will not be just out of economic necessity and social cohesion. The real reasons will be how to address both the pressing needs of the knowledge economy through more interdisciplinary and team based learning. And in so doing finding new urban strategies to transform and intensify existing urban sites into open communities based on life long and shared learning experiences.



Can a new campus prototype mix school locations, share spaces, work, research, housing and facilities, to create a large urban community of little buildings?



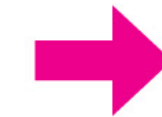
FROM BUILDINGS



TO URBANISM



FROM ENCLAVES



TO CITY BUILDING

New Campus Prototype

From institutions to community

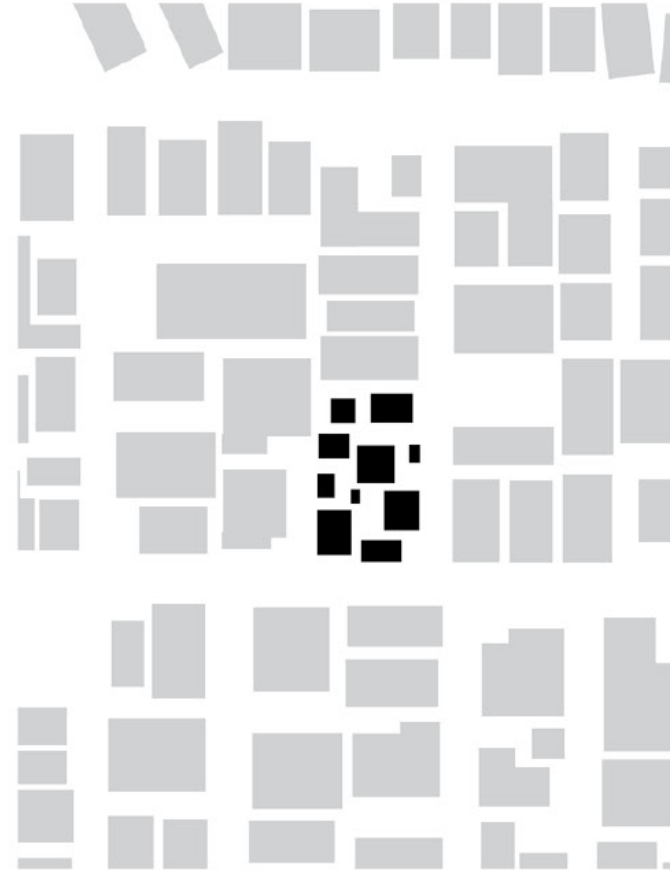
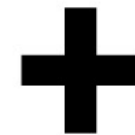
We are entering a new phenomenon in education and society that work outside traditional academic and educational parameters in search of conditions related to innovation. In the past, higher education has been described as a series of "silos" (departments, divisions, colleges within a university), where carefully created boundaries limit true collaboration and interaction. Innovation on the other hand tends to cross boundaries, creating new categories and in the process, introduces conflict into the culture. Education once seen as discrete and organized in a linear process where graduation led to a job for life, is being displaced by interdisciplinary work teams spread over many ages, academic research departments, locations and facilities where the existing city is now playing an increasingly important role. Student life is not confined to classrooms, but highly flexible, dynamic spaces that must meet a wide variety of demands, often on a 24/7 schedule. Where the traditional post war form education have simply failed to provide due to their relative isolation to the city and their immediate context, these new demands go beyond traditional boundaries of the school building. A new mobile campus community.

From buildings to urbanism

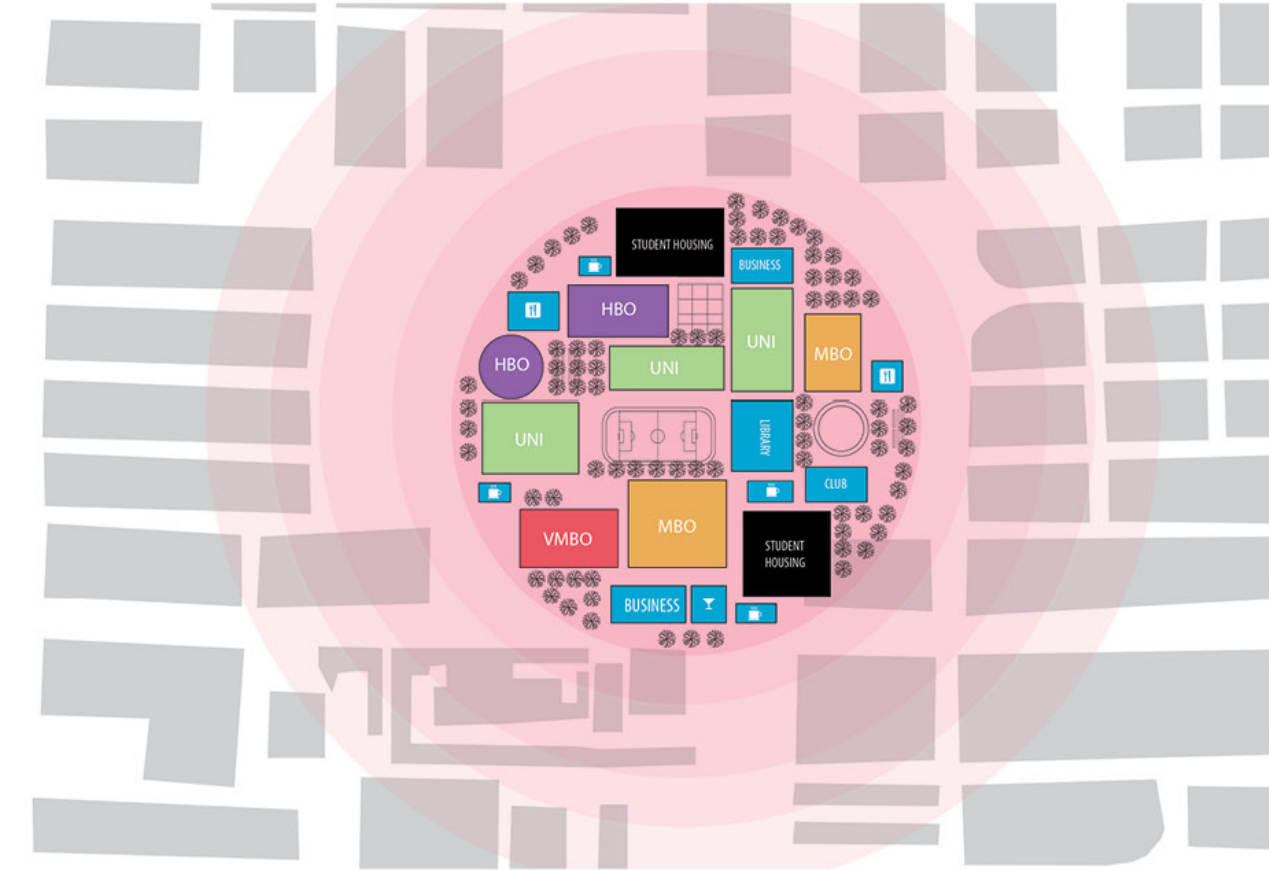
Research is needed into a new campus prototype that will not just be about just relocating the campus back to the city. We need to formulate the conditions for a campus prototype as an urban strategy to generate new economic zones and innovation environments that can constantly change to meet future demands of the educational landscape. And by doing this, making this a question of design. It is becoming increasingly necessary to concentrate more functions related to education and the city together to not only pursue overlaps, share spaces and encourage interdisciplinary activity but to create mixed use educational environments that exist as unique highly dynamic and open communities for the city. Through clustering functions beyond the classroom and encourage innovative research practices we can create new thematic educational hot spots in the city. The traditional education experience through one enclosed and dedicated space is no longer necessary or desirable. Therefore the new campus prototype will be about bringing the city into the campus and the campus into the city.



Silicon Valley



Tokyo Metabolism



Campus Cluster Concept

Research Formulation

Part 2

Can the new campus cluster prototype be an answer to the increase in students and size of educational buildings and at the same time be a catalyst to transform existing parts of the city?

The decentralized and liberalised changes occurring in the education today are asking for new spatial and social models that go beyond the scale and functional mixing of the building to the search for mature urban conditions. Our questions asks if an innovative approach to land use and function mixing can form the basis for a new campus culture, combining current developments in educational thinking and small scale urban intensification planning. This social economic approach explores the potential of a new campus prototype that 'scales up and sizes down' school buildings as an open community to the city.

A number of significant changes are occurring in the educational landscape can be identified; increased mobility of students on a local and regional level, increased student housing requirements, growing internationalisation of the student market, the rise of social networks, interdisciplinary training between educational careers, life long learning, increased role of the private sector, research and start up businesses as funding / internship providers, are just a few of long list of phenomena yet to be translated into new design models. All of these changes are asking the question of whether the school building as one large enclosed environment is sufficient enough to meet the demands of nomadic and urbanized student life. Given the dynamic nature of educational buildings as a typology, we ask is the campus not the most enabling urban model to meet these new demands?

We are entering a new phenomenon in education and society that work outside traditional academic and educational parameters in search of conditions related to innovation. Student life is not confined to classrooms, but highly flexible, dynamic spaces that must meet a wide

variety of demands, often on a 24/7 schedule. Where the traditional post war form education have simply failed to provide due to their relative isolation to the city and their immediate context, these new demands go beyond traditional boundaries of the school building. All these developments are requiring the education facilities to be more engaging with both the outside and virtual world. Learning for students today Students is a total educational experience and not just restricted to the traditional classroom experience.

Can we design specific large scale education and innovation environments within the context of the existing city that go beyond the primary functions of the educational building? How can we create a new prototype of the campus where spin-offs to the neighbourhood level can be experienced, increase economic benefits to the city through start ups and create international attention?

Formulation of Phase 2

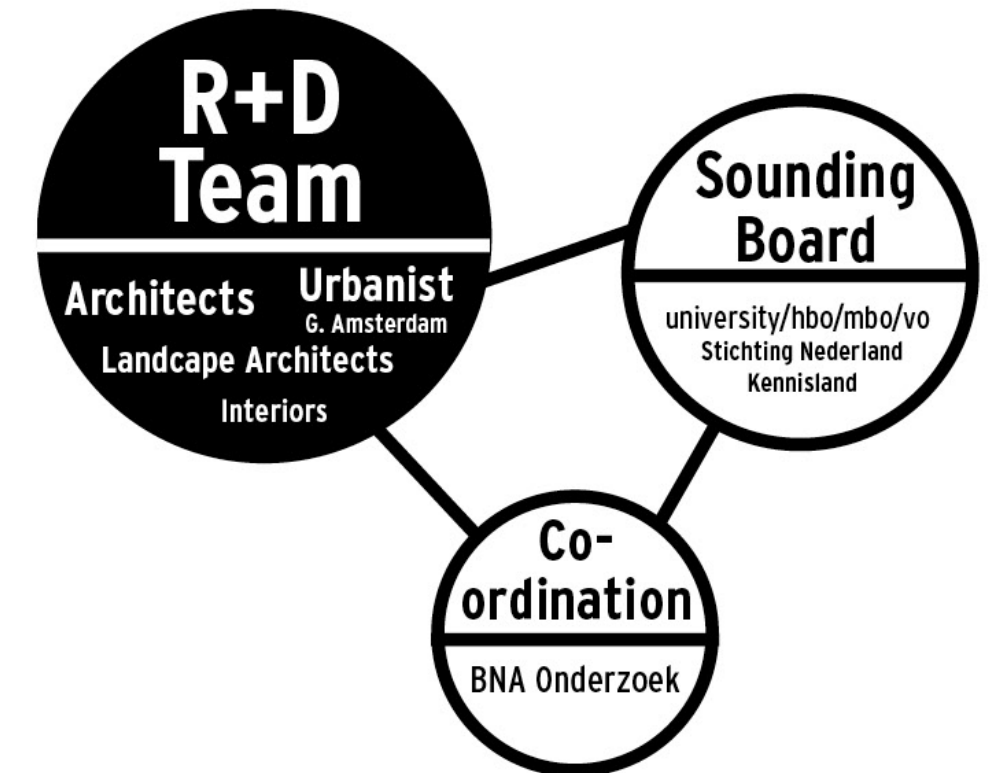
For phase 2 we are formulating a follow up interdisciplinary design and research studies into Campus without Boundaries in the form of a new prototype campus environment for the 21st century city. The question is very relevant for the Netherlands in their pursuit to be in the future top 5 innovation countries in the world. As a test, our chosen case study will be placed in the future scenario Amsterdam in 2040 as it may very present the greatest challenges for a new campus prototype.

Phase 2 will organize interdisciplinary design research teams lead by architects using the campus model as a means to transform under used locations in the city of Amsterdam into vital urban (educational) campus environments. At this stage in our investigation we have identified in total 4 locational zones and 4 themes to explore new types of campus models in the year 2040. By this time Amsterdam will have developed as a metropolitan city home to approximately 2.5 million inhabitants with an international center for research and a strong local creative industry. The city will have the developed with 4 spatial scenarios that will have accommodated all the growth and changes over the next 30 years.

In order to accommodate a dramatic increase in students living in the city and the consolidation of school buildings into educational communities the urban intensification

Four locations with 4 (educational) themes as test cases for new campus cluster prototype have been identified.

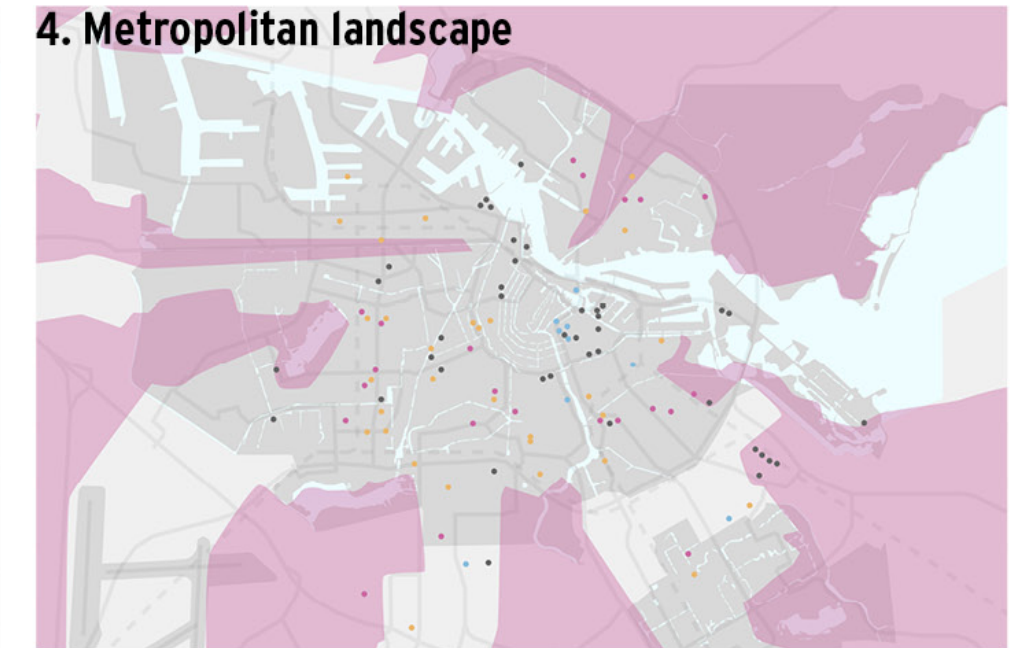
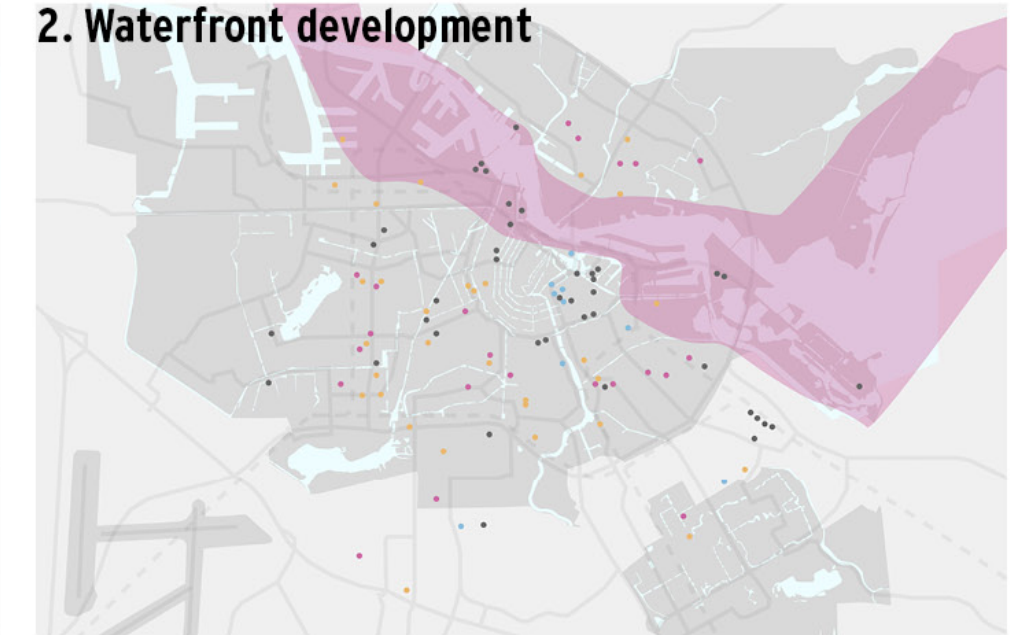
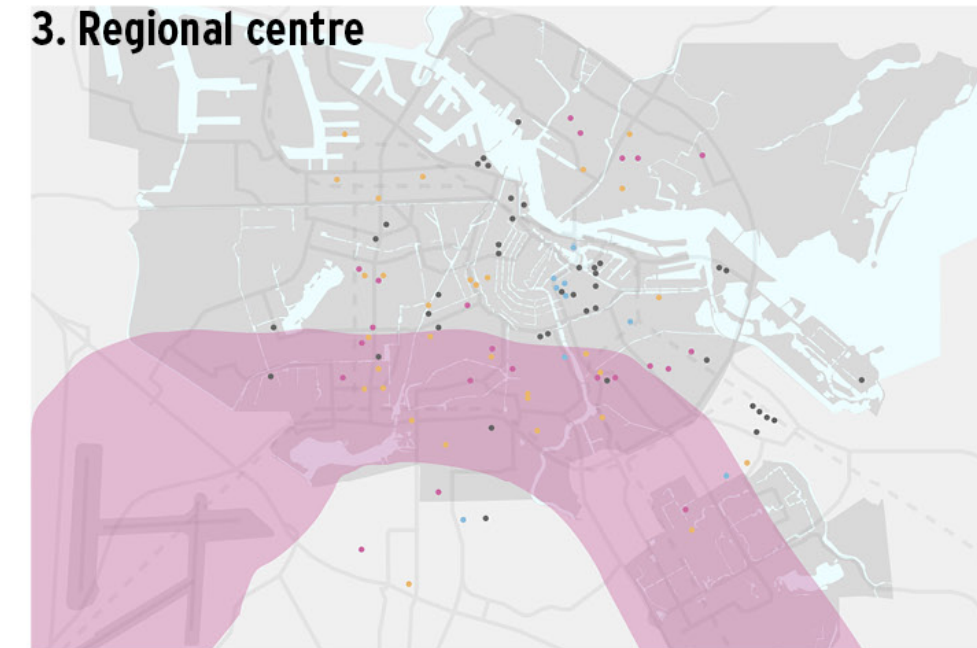
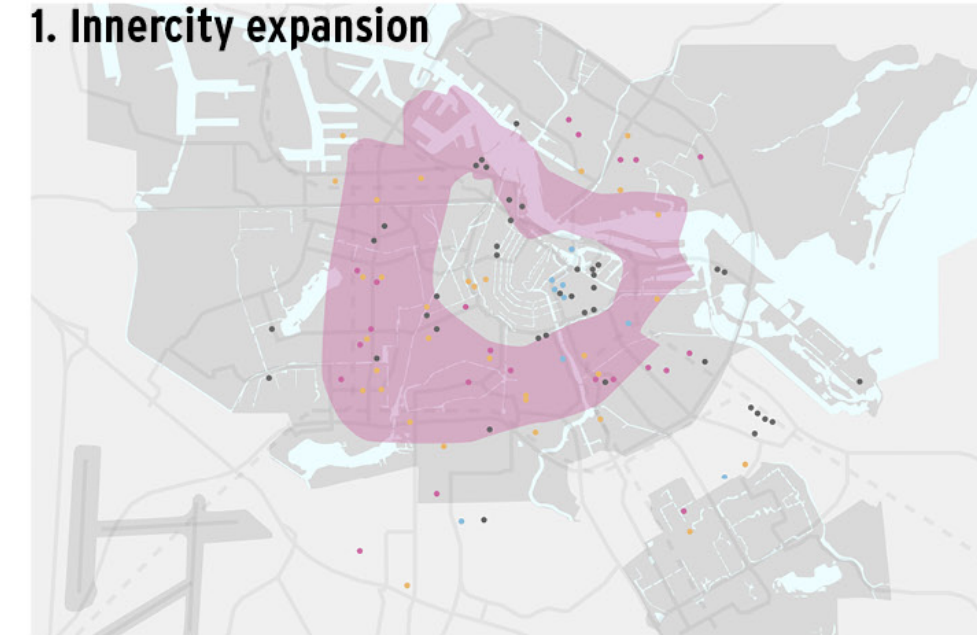
Each location will be developed within an interdisciplinary organisational team lead by one architectural team per location. The Gemeente will assist in defining the locations and a basis for a program of requirements. Economic expertise as well as social geographical advice will be provided by the university researchers. Key advisors will be added to the list in consultation with the WO, HBO and MBO educational associations. HAVO, VO and VMBO will be organized within each location as a potential player to set up a the possibility to share both learning facilities and inspire students to continue further with their education.



Four Scenarios

Increasing metropolitan conditions and the need to reduce the carbon footprint mean that cities have to intensify existing urban territories as a starting point for any new development. Can new forms of campuses answer this question by re configuring the educational and economic landscape through the logical patterns of development scenarios?

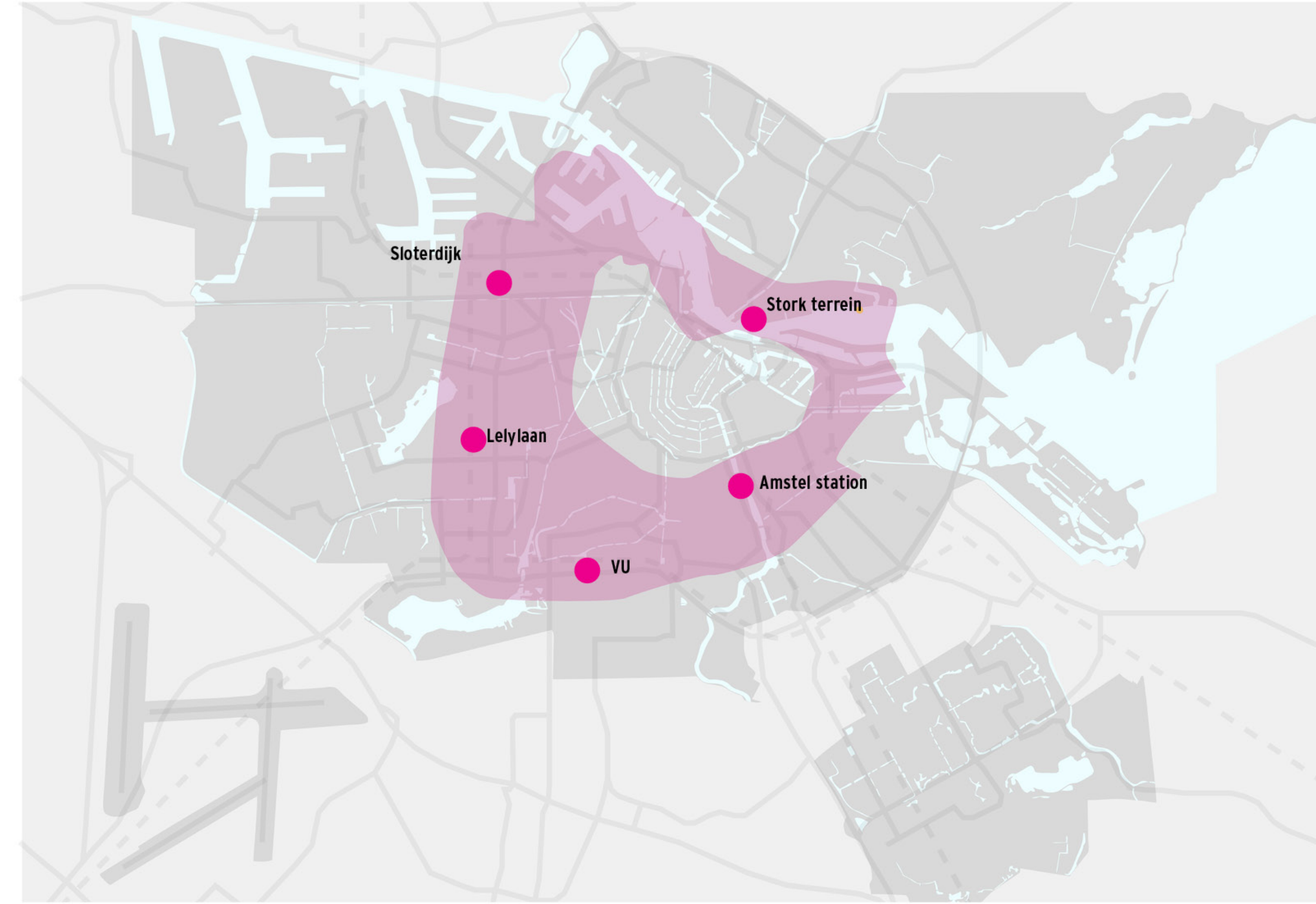
Due to the globalization of the economy and advanced social networks **new generic urban conditions** are emerging where cities are beginning to compete for the same (mobile) resources. Cities are not only competing for talented knowledge workers and industries, they are retooling themselves in order to facilitate this market as, so called, **'Talent Towns,'** where universities are now seen as a major player. The university campus is both an urban and architectural typology and therefore has a number of generic design properties applicable to most urban locations with similar functional requirements. What are the urban potentials of the **campus as city builders?** But more research is needed on how a new campus typology can be developed in such a way that it can include more players, more types of education, more functions over more time intervals in more places and more city. Amsterdam is chosen as a specific case study to test out this new campus type within four generic development scenarios on how a city can perform under current **'post crisis' conditions.** Four spatial scenarios from the Amsterdam Structure plan of 2040 will be used: 1. inner city expansion 2. waterfront development 3. regional centre and 4. metropolitan landscape. Within each scenario one location will be chosen for further development in Phase 2 of this research.



1. Innercity Campus

A continuing trend in Amsterdam and most major metropolitan areas is the increasing intensification of the urban core. Through this intensification the urban core will grow outwards towards the A10 ring road as its outer limit. The variation of the existing fabric and the elaborate identities of the neighbourhoods make the insertion of an inner city campus an additional social and economic magnet in the intensification of the urban core.

An inner city campus can follow this ring, running along the main transportation lines as the inner city highway, metro and train stations. Locations beside transportation links at all levels are essential. **Increased local mobility** is the core to the new economy. With on one side the centre the other side the periphery, parks and in some cases the wedge shaped landscapes surrounding the city. With available space being limited, this project will focus on **reusing (parts) of the city**, empty offices etc., with new public spaces over the highway, the central campus will connect centre and periphery. The magnetism of the centre can be seen especially in the need for an **authentic** and mature urban context. This authenticity is the Amsterdam unique selling point but also for (foreign) students unique educational experiences and start ups where focussed small scale creative industry can occur only through an expanded core of Amsterdam can offer.



2. Waterfront Campus

The rediscovery of water will be an area for growth and development of major cities in the future. Water within and around the city is one of the main features that distinguishes Amsterdam from most other metropolitans. Via the IJ river and the Zaanoevers Amsterdam is physically connected with Zaanstad to the west. With the development of Zeeburger island and IJburg II the zone is extended eastward.

IJ has been the spatial and economic hart of Amsterdam until the construction of the railway line when the centre was cut of from the water. Iron replaced water as the main form of modern transport. Now the shores along the IJ have become the **biggest single plot** with an enormous potential for new housing, workplaces, recreation and education, a whole new part of the city which will bring the IJ back to the centre of Amsterdam connecting the two parts of the city together and beyond its borders to Almere and Zaanstad. The **rediscovery of water** goes hand in hand with what this surface area can offer as new development potentials. How could this **blue campus** look like? Can it interact with existing neighbourhoods? Can the water connect the different part of the campus spread along its shores? Could it be temporary? Floating and movable parts of the campus can be plugged in were ever needed. Connected by a network of boat routes, these temporary islands create a unique and flexible way of contemporary city building.

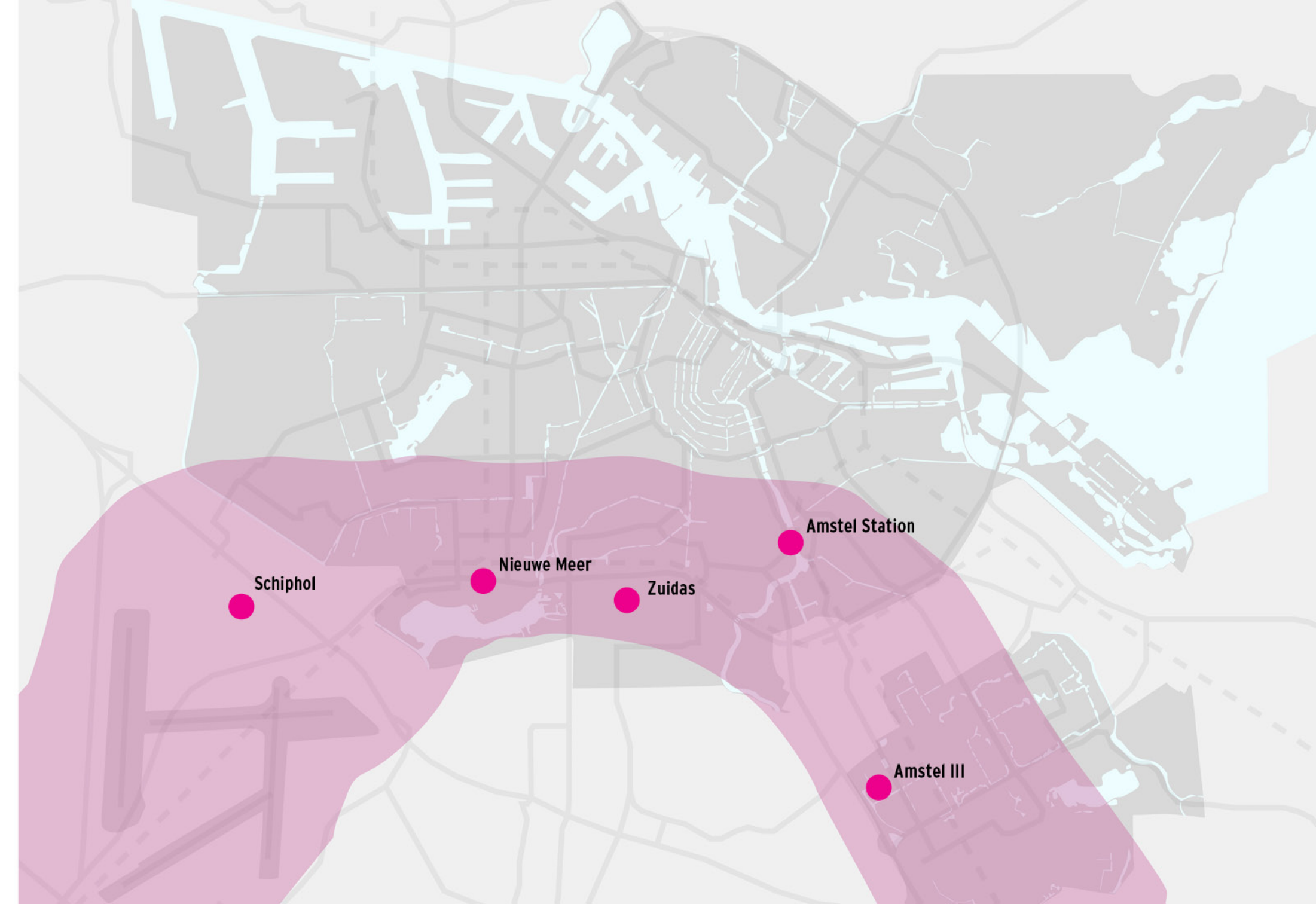


3. Regional Campus

If the Randstad is the economic corpus of the Netherlands, the Amsterdam 'south flank' is its heart. This area contains the biggest concentration of headquarters and one of the countries most important public transportation hubs. This hub links Schiphol, the northern region of the Randstad and via train and airplane to Europe. This area is planned as a continuous economic corridor made of the Schiphol Airport, South Axis and Amstel business park.

In the same area the Vrije Universiteit (VU) is undergoing a major upgrade in the form of a "Knowledge District" through planning new buildings, collaborations with INHolland (HBO) and expanding its territories. As a test bed for combination of companies, housing, shared facilities and all kinds of schools into one large campus the South flank could also become **the brains of the Netherlands** through life long learning environments. Beyond it reaches out to Utrecht to the east and Leiden to the west in the C shape of the Randstad. In fact it could turn the Randstad into the Dutch version of **silicon valley**; research and development companies could re-link brainpower to economic power.

For this south part of the city it would mean a structural mixing of new program into the work dominated area it is now. **Connecting different university sites** into one large area combined with shopping areas, the biggest concert area (arena), regenerated offices, Schiphol, parks, nature and new (student) housing areas.

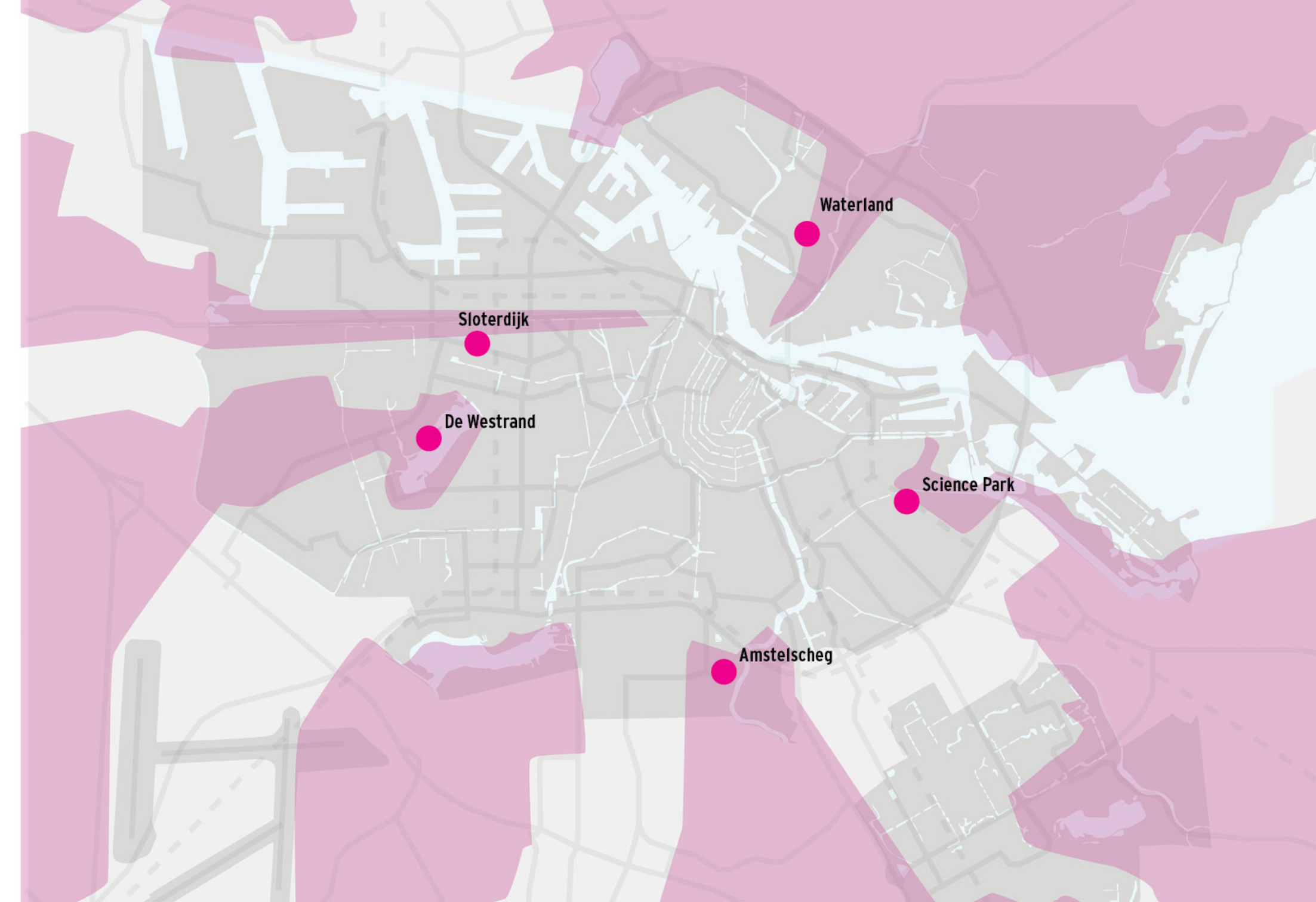


4. Metropolitan Campus

Amsterdam is surrounded by a very diverse green areas that can be developed as a metropolitan park landscape penetrating the city in the shape of wedges. Some of these landscapes are historical like the river Amstel and the IJ, others are new. The potential of the metropolitan park lies in the connection moments to the city. How can the borders between the two form new sites for interventions?

Can the theme of the **metropolitan campus** be a catalyst of this rearrangement between city and its surroundings? In this scenario the campus is a strategically placed intermediate between city and landscape. The campus both **green and red**. Borders between red and green blur but the limits become specific, connecting the city with its surrounding landscape of forests, water and production land.

Rather than being enclosed, fighting for space in the city, the campus can open up, let green in, mix with the historical landscapes or parks. At the same time being at the edge the metropolitan campus is still part of the city, as a well connected intersection to the centre. Characteristic will be a green and park like setting but then not isolated to the city but open to the city functioning as **urban forest gateways** between the urban core and the vast open landscape. This combination of park and city will pursue the fine balance of the urban intensity with (green) openness.



Four Locations Four Themes

Research and Design will be conducted into 4 location zones each with their own theme and program of requirements. Locations were chosen through analysing the overlaps of the 4 development scenarios. One of the 4 development scenarios will be used to expand the brief to create a program of requirements related to the scale of the scenario. One location will be allocated per team. Both the specific locations and functional mixing will be in defined in consultation with the Gemeente and an expert sounding board. The educational program will be developed in consultation with the educational institutions.

Campus 1:

- **Floating Campus** for the sector design, information communication technology and fabrication. Water and land based functions are mixed to explore new possibilities for combining schools, student housing, public space, boats and floating structures. Unique technical and architectural solutions for permanent and temporary use.

Campus 2:

- **Metropolitan Campus** regional and specialising in business trade and international studies for larger urban conurbation in a dense urban park like setting. Housing and businesses to be strengthened as an expanded but integrated community of existing and new buildings. Metropolitan scale landscape in combination with large scale infrastructure will be the spatial character of the campus environment.

Campus 3:

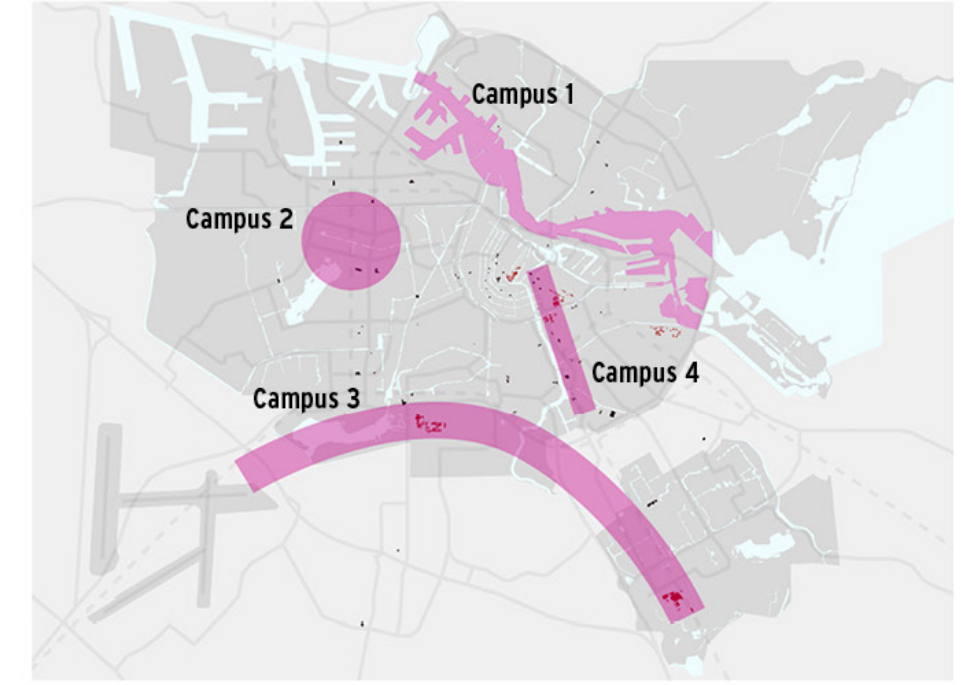
- **Randstad Valley Campus** specialising in mixing housing, medical sciences, law, knowledge workers and international businesses. Campus as city builders at a local scale of the city and the large scale Randstad region with the green heart as it's centrifuge. Create super campus with fusion VU and UvA and develop research links with existing universities as Leiden and Utrecht. Economic spin offs with local and regional urban context will give this a the spatial character of a Randstad version of Silicon Valley.

Campus 4

- **Innercity Campus**. Build on existing HBO levels and add crossovers from University levels and HAVO + VWO. Spatial character determined by proximity to a regional train station and metro stations with an existing but under used Wibaut-As location to a number of schools, abandoned buildings and a high number of educational institutions. Wibaut-As as an urban backbone with local extensions into existing contexts.



Overlapping 4 development scenarios



Case study: 4 campus location zones

