



UiO : **University of Oslo**

UNICA GREEN Workshop 2016, Rome:  
Towards Carbon-Neutral Universities

**How**  
**does a Campus Masterplan make any difference**  
**towards a carbon-neutral university?**



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*University of Oslo*



UniOslo

Hjem Videoer Spillelister Kanaler Diskusjon Info

**Livsvitenskap - tegnet og forklart på tre minutter**  
 sett 2 602 ganger For 1 år siden

Ved å bringe sammen spisskompetanse fra biologi, fysikk, kjemi, farmasi, matematikk, statistikk, informasjon og en rekke andre fag oppstår nye ideer og ny kunnskap. Vi kan derfor si at vi står foran en ny vitenskapelig revolusjon. Livsvitenskap er Universitetet i Oslos største satsing. Hver eneste dag jobber over 1000 UiO-forskere på tvers av fag for å ta et dypdykk i livets gåter og løse nye samfunnsutfordringer.

**My Top Videos**

Bli UiO-student - prosjektor Inga Bostad  
 av UniOslo  
 sett 3 203 ganger - For 7 år siden

Bli UiO-student - professor Bernt Hagtvet  
 av UniOslo  
 sett 4 162 ganger - For 7 år siden

Bli UiO-student - professor Hilde Henriksen Waage  
 av UniOslo  
 sett 2 483 ganger - For 7 år siden

Bli UiO-student - førsteamanuensis Anette E.  
 av UniOslo  
 sett 9 524 ganger - For 7 år siden

**Opplasteringer**

Studer spesialpedagogikk ved UiO  
 av UniOslo  
 sett 213 ganger - For 2 mnd siden

Studer pedagogikk ved UiO  
 av UniOslo  
 sett 205 ganger - For 2 mnd siden

Thomas Hylland Eriksen forsker på globale endringer og  
 av UniOslo  
 sett 646 ganger - For 2 mnd siden

Kristin Braa forsker på mobilitet og underviser i  
 av UniOslo  
 sett 530 ganger - For 2 mnd siden

Anders M. Fjell forsker på hjernen og underviser i psykolo  
 av UniOslo  
 sett 581 ganger - For 2 mnd siden

**Global Citizen lecture series**

Global challenges require solutions that combine local and global perspectives. This fall we are launching the concept of Global Citizen - through a series of lectures at Blindem, open to everyone.

Global Citizen: Hans Rosling at The University of Oslo: "Fact  
 av UniOslo  
 sett 41 263 ganger - For 3 år siden

Global Citizen: The Europeanization of Law  
 av UniOslo  
 sett 655 ganger - For 3 år siden

Global Citizen: The Nation State in the Age of Globalization -  
 av UniOslo  
 sett 4 039 ganger - For 3 år siden

Global Citizen: Nina Wittozek - The Idea of Citizenship in the A  
 av UniOslo  
 sett 1 282 ganger - For 3 år siden

Global Citizen: Innovative Mobile Technologies improving health  
 av UniOslo  
 sett 613 ganger - For 2 år siden

# facts and figures

Students	27,227
PhD students	3,018
Staff	6,194

Faculties	8
Museums	3
Library Holdings	2.8 mill

Budget (NOK)	7.1 billion
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Nobel Prize Winners	5
Ranking, Shanghai (No, world)	58

# Strategy 2020

UiO : University of Oslo

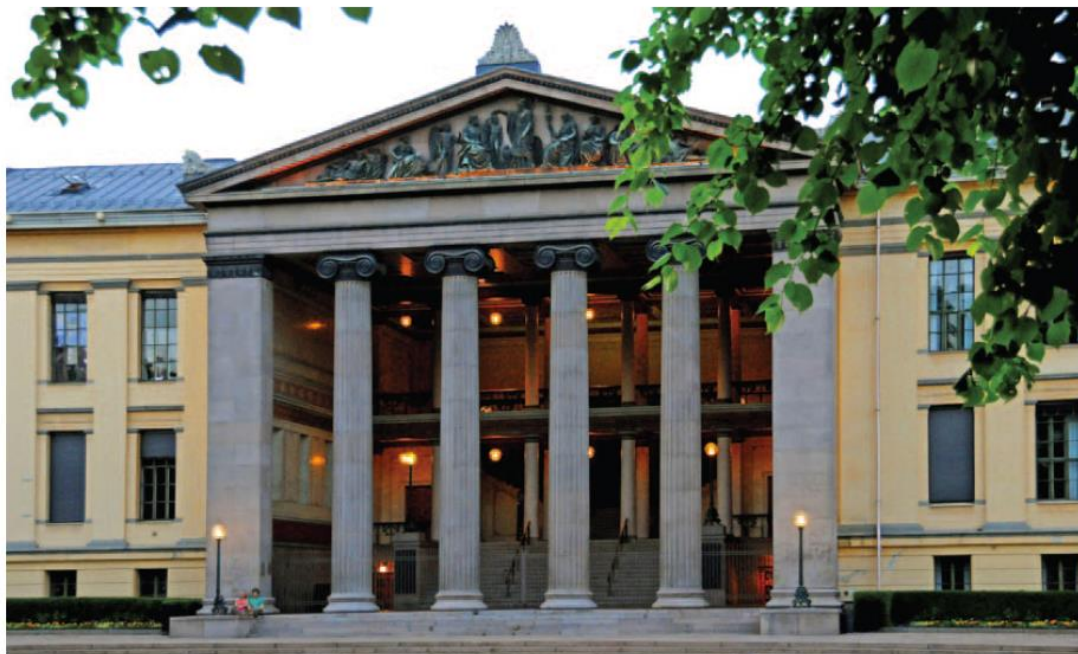


FOTO: ARTHUR SAND



## Strategic objective for the University of Oslo in 2020:

The University of Oslo will strengthen its international position as a leading research-intensive university through a close interaction across research, education, communication and innovation.

# UiO Strategy 2020

## Core values

“ The University of Oslo is ready to take responsibility for helping to resolve global challenges, particularly those related to climate and the environment.

UiO will take responsibility for facing environmental and climate-related challenges both through research and education related to the environment and through operations at the university.

In this way, UiO will establish itself as a green university.”

## Campus

“ Investment in new buildings and upgrading of existing ones will be prioritised on the basis of UiO’s main objective and the objective of sustainability”





# Environmental Strategy



# Environmental Strategy

- from policy to targeted areas



MILESTONE	ENERGY (Reference value 2012: 243 kWh/m2)
UiO's energy consumption should be reduced by at least 10 per cent per square metre by 2016 (cf. 2012 level).	
E1U	Pure energy efficiency investments corresponding to NOK 15 million made.
E2§	Energy evaluation of technical systems completed.
E3§	Energy label certificates made available to the users in the buildings.
E4U	Energy monitoring system implemented technically and organisationally.
E5U	Plan for the upgrading of windows to a higher energy class completed.
MILESTONE	CLIMATE (Reference value 2012: 4,568 tonnes)
Greenhouse gas emissions per square metre from stationary energy consumption (UiO) and transport (ED) should be reduced overall by at least 10 per cent from the 2012 level by 2016.	
K1	Use of fossil oil as the primary source of energy in buildings owned and leased by UiO phased out.
K2	Fossil fuel-powered passenger cars phased out by 2016 (ED).
K3	District heating supplier influenced to supply a more climate-friendly district heating mix.
MILESTONE	WASTE (Reference value 2012: 32.0%)
The source separation rate should be increased to at least 50 per cent by 2016, cf. 2012.	
A1	The recycling station at the Museum of Cultural History secured and upgraded.
A2	All of the intermediary storage sites for hazardous waste surveyed and improvements proposed.
A3	User-controlled destruction of sensitive data introduced.
A4U	Plan for waste separation at source and disposal prepared.
A5	Substitution obligation satisfied and ED's use of chemicals registered with ECO Online.
MILESTONE	PROJECTS AND PROJECT FOLLOW-UP
Routine for the annual quantification and reporting of the projects' combined environmental impact introduced (2016).	
P1	Project handbook updated.
P2	The project managers' reporting responsibilities in the environmental area redefined and followed up.
P3	Greenhouse gas accounts prepared for one project starting in 2013.
MILESTONE	ENVIRONMENTAL ASPECTS WITH SPECIAL PRIORITY IN 2013
Significant individual improvements should be made for the annual environmental aspects with special priority.	
M1	Energy management introduced.
MILESTONE	OTHER ENVIRONMENTAL MEASURES DURING THE PERIOD
Priority measures beyond the main environmental aspects.	
O1§U	One-third of the work to replace regulated synthetic coolants completed.
O2U	Environmental strategy and action plan for the management and operation of buildings and installations prepared and implemented.
O3	Sources of particle/NOx emissions identified and quantified.

## Targets 2020

15 %

- UiO's energy consumption per square metre should be reduced by at least 15 per cent, compared with 2012.

20 %

- Greenhouse gas emissions per square metre from stationary energy consumption (UiO) and transport (ED) should be reduced by at least 20 per cent, cf. 2012.

80% / 5 %

- The source separation rate should be increased to at least 80 per cent. Total amount reduced by 5 percent

RED.

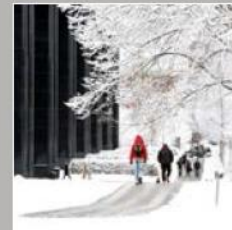
- The building projects' relative environmental impact should be reduced annually during the period from 2016 to 2020.

# Campus Master Plan

UiO : University of Oslo

## Space for an outstanding, green university

– and for Oslo, the city of knowledge



Master plan for UiO's properties  
Summary June 2015



## Campus Master Plan

### Key figures for property activity 2015

#### Area

Own properties	472 000 sq.m.
Leased properties	110 000 sq.m.
Outdoor, parks	500 000 sq.m

#### Budget (M NOK)

Internal rent	686
External rent	240
Operation	85
Major maintenance	180
Development Projects	184

#### Needs (B NOK)

Technical maintenance backlog	2.8
Functional upgrades	5.8

## Space for an outstanding, green university

– and for Oslo, the city of knowledge



Master plan for UiO's properties  
Summary June 2015



# Campus Masterplan

## - coupling «excellence» and «green»

- Serving the needs of an international research community the next 40 years.
- Providing learning environments for students of today and tomorrow.
- Describing status and a massive development scheme
- Ambitious environmental building policy.

The new master plan for UiO's properties provides the framework for how UiO can develop the properties and campuses to make them suitable for future use.

Clear guidelines for UiO's property development in

- the short term (2015–2020),
- medium term (2020– 2027)
- long term (2027–2040).

The document lays down overarching guidelines and priorities for achieving our ambitions, and discusses and recommends financial solutions and other frameworks.

# **Campus Masterplan**

- specific requirements

“UiO aims to become a greener university.

This means new energy solutions and more efficient use of space. Our buildings must meet international environmental standards.

The modernization of existing buildings and building of new ones will therefore be subject to environmental requirements.”

# The Masterplan is not year zero

## history

- Heating: daily truck of oil
- Taxis and own cars only
- Electricity: European market mix
- Increasing use of plane for all collaboration.
- Purchaser's choice: green or not green
- 32 % waste sorting
- Energy by building complex

## today

- Heating: distant heating
- Electric car pool
- Electricity: guaranty of origin
- Video meetings. Stopped increase in flying
- Green purchasing policy : qualification & evaluation
- 50 % → 80%
- Energy management according to ISO 50001



# Campus Masterplan

- coupling «excellence» and «green»

## It is not only what it says

“Buildings account for a third of all greenhouse gas emissions and 40% of the world’s energy consumption. Efficient area use is therefore an important element of UiO’s work on the environment and sustainability.

However, sustainable buildings are about so much more, including material use, energy use, waste management, transport and pollution.

UiO will use BREEAM to document its environmental efforts in relation to its properties.

All new buildings must, as a minimum, achieve a BREEAM Excellent rating.

Existing buildings under renovation must also aim to achieve a BREEAM Excellent rating.”

## *But what it implies...*

Management

Health & Wellbeing

Landuse & Ecology

Water

Energy

Materials

Waste

Transport

Pollution

# UiO - the carbon story

## Starring

- A Rectorate
- An overall strategy
- A management team
- A campus masterplan
- Targets
- Dedicated professionals
- Nuts and bolts

***Nuts and bolts  
in the new toolcase***

*Internal rent; area  
efficiency*

*Energy efficiency*

*Resource management*

*CRM system*

*Competence  
development*

*Demanding customer  
and market actor*

*City partnerships*

*Student collaboration*

**Does**

**a Campus Masterplan make any difference  
towards a carbon-neutral university?**

Yes,  
*when providing  
the WHATs, the WHOs or the HOWs*



# Thank you!

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