Environmental and climate change strategy
for UiO’s estate operations
2018–2020–2040

Space for an outstanding, green university
– and for Oslo, the city of knowledge

Master Plan for UiO’s Properties
Contents

Foreword 4
Structure of the strategy 6
Vision and targets 8
Getting started 9
Targets and measures

- Greenhouse gas reduction
  - 10
- Reduced and renewable energy use
  - 12
- Environmentally friendly transport
  - 14
- Waste reduction and increased source separation
  - 16
- Environmentally sound use of materials and resources
  - 18
- Procurement as a driver of environmental and climate change work in the estate operations
  - 20
- Efficient area management that is beneficial for the environment and creates a pleasant working environment
  - 22
- Environmentally efficient buildings
  - 24
- Environmentally efficient outdoor areas that create a positive environment
  - 26

Organisational measures

- Management, organisation and culture that promote the environment and climate and give green results
  - 28
- Outstandingly green expertise
  - 30
- Systems that assist and highlight environmental work
  - 32
Outstandingly green estate operations
Buildings account for a third of all greenhouse gas emissions and 40 percent of the world’s energy use. Therefore, efficient use of space is important for the University of Oslo’s work associated with the environment and sustainability. When we talk about sustainable buildings in this strategy, we are referring to energy use, material usage, waste management, transport and pollution.

“The vision is that UiO’s property development and management shall be climate neutral” is the message stated in Space for an outstanding, green university – and for Oslo the city of knowledge, Master plan for UiO’s properties – (2015). The Environmental and Climate Change Strategy for UiO’s Estate Operations is a follow-up to the Master Plan and shall serve as the University’s tool for environmental and climate change work within estate operations. In this strategy, carbon neutral estate operations are no longer a vision but a target for 2040.

The Environmental and Climate Change Strategy for UiO’s Estate Operations is realistic and achievable. Working towards sustainable estate operations is nothing new for us. The Estate Department already uses BREEAM as the basis for environmental initiatives for new buildings and renovations.

The task of the Estate Department is to manage the University’s buildings in a manner that supports UiO’s core activities: Research, education, dissemination and innovation. UiO’s Strategy 2020 emphasises the importance of sustainable estate-operations: “UiO will take responsibility for facing environmental and climate-related challenges through research and education of environmental relevance and through sustainable operations. By increasing overall efforts in the area of the environment, UiO will establish itself as a green university.”

Strategy 2020 also emphasises that the University of Oslo shall have environmentally-friendly operations and property management. The Estate Department has therefore been assigned special responsibility for the environmental and climate change strategy. As part of the work on implementing this, we will place particular emphasis on further developing management and an organisation and culture that promote the environment and climate and give green results, develop outstandingly green expertise and establish systems that assist and highlight environmental work.

The work on developing the environmental and climate change strategy has involved both students and staff. UiO’s management has been engaged in this work since it was approved by the board on 20 June 2017. The Estate Sector’s Road Map Towards 2050 has been an important source of inspiration and Grønn Byggallianse (Green Building Alliance) has been used for quality control of the strategy’s targets and measures. As a top international university, UiO must be a pioneering institution. With the Environmental and Climate Change Strategy for UiO’s Estate Operations, the Estate Department adopts the 10 immediate measures for building owners in the Road Map.
Structure of the strategy

The Environmental and Climate Change Strategy for UiO’s Estate Operations is action-oriented, sets targets and identifies measures. There are nine areas that shall be beneficial for the environment and climate:

1. Greenhouse gas reduction
2. Reduced and renewable energy use
3. Environmentally friendly transport
4. Waste reduction and increased source separation
5. Environmentally sound use of materials and resources
6. Procurement as a driver of environmental and climate change work in the estate operations
7. Efficient area management that is beneficial for the environment and creates a pleasant working environment
8. Environmentally efficient buildings
9. Environmentally efficient outdoor areas that create a positive environment

All areas have their own sections in the strategy document and include targets for 2020 and 2040. Each target has one or more measures. Several of the measures can now be initiated. These are immediate measures that are decisive to meeting further targets. The immediate measures involve implementing specific measures, demanding environmental efficiency when making procurements, cooperation in relation to the environment and climate change, as well as building up capacity and incorporating environmental and climate change considerations into ordinary plans. The immediate measures must have been implemented by no later than 1 December 2018. The other measures must have been realised by 31 December 2020.

Three areas of organisational measures have also been described. These are measures that will enable the Estate Department to meet the targets.

- Management, organisation and culture that promote the environment and climate and give green results
- Outstandingly green expertise
- Systems that assist and highlight environmental work

The organisational measures are also described with targets and measures.

Different stakeholders must find solutions in the different areas. The strategy will ensure coherence and continuity and guide UiO’s estate operations towards the vision of being outstandingly green.
## Outstandingly green

### Targets and Measures

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂</td>
<td>Greenhouse gas reduction</td>
</tr>
<tr>
<td>🍃</td>
<td>Reduced and renewable energy use</td>
</tr>
<tr>
<td>🚗</td>
<td>Environmentally friendly transport</td>
</tr>
<tr>
<td>🚮</td>
<td>Waste reduction and increased source separation</td>
</tr>
<tr>
<td>🌿</td>
<td>Environmentally efficient buildings</td>
</tr>
<tr>
<td>🚚</td>
<td>Procurement as a driver of environmental and climate change work in the estate operations</td>
</tr>
<tr>
<td>🏡</td>
<td>Efficient area management that is beneficial for the environment and creates a pleasant working environment</td>
</tr>
<tr>
<td>🌿</td>
<td>Environmentally efficient buildings</td>
</tr>
<tr>
<td>🌿</td>
<td>Environmentally efficient outdoor areas that create a positive environment</td>
</tr>
</tbody>
</table>

### Organisational measures

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🌿</td>
<td>Management, organisation and culture that promote the environment and climate and give green results</td>
</tr>
<tr>
<td>🌿</td>
<td>Outstandingly green expertise</td>
</tr>
<tr>
<td>🌿</td>
<td>Systems that assist and highlight environmental work</td>
</tr>
</tbody>
</table>
Vision
UiO’s estate operations:
Outstandingly green

Targets for 2040

- Carbon neutral estate operations in 2040.
- Reduction of UiO’s energy use per square metre by 40 percent.
- All transport related to UiO’s estate operations shall be emission-free.
- 50 percent reduction in the amount of waste. Material recycling ratio of 80 percent.
- Select non-toxic building products and materials with a documented low carbon footprint.
- Use purchasing power to create environmental benefits and reduce greenhouse gas emissions.
- UiO’s areas shall be managed in the best interest of the environment, students and employees.
- Build, upgrade and manage the buildings in an environmentally efficient manner.
- UiO’s outdoor areas shall promote environmental and biological diversity and create well-being and joy in nature.

Organisational measures

Management, organisation and culture that promote the environment and climate and give green results

Outstandingly green expertise

Systems that assist and highlight environmental work
Getting started in 3 steps

Step 1
Familiarise yourself with the targets. The strategy includes measures that shall be implemented by the Estate Department. You will be using this as a tool in your work in the years to come.

Step 2
Identify areas, targets and measures that concern your area of responsibility and specialist field. Start with the immediate measures. Speak to your immediate superior and colleagues and cooperate with others when necessary. Ensure that consultants who perform work for UiO do so in accordance with this strategy.

Step 3
Incorporate targets and measures into other plans and budgets. Develop your own expertise. Systematise experiences. And remember to celebrate your achievements along the way!
Greenhouse gas reduction
The combined efforts of all estate operations are required for us to contribute to reducing global warming and achieving the goal of climate neutrality. We shall implement and invest in measures that reduce emissions and apply purchasing power to promote and use solutions with lower greenhouse gas impact.

### Targets for 2040

#### Carbon neutral estate operations in 2040

**Targets for 2020**

<table>
<thead>
<tr>
<th>Greenhouse gas accounts are used as decision-making support for the Estate Department’s projects.</th>
<th>Reduced emissions when carrying out construction projects.</th>
<th>Documented greenhouse gas reductions throughout all estate operations.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Immediate measures:</strong></td>
</tr>
<tr>
<td>- Complete training in use of the website klimagassregnskap.no.</td>
</tr>
</tbody>
</table>

**By 2020:**

- Prepare the evaluation criteria for greenhouse gases in various parts of the estate operations.

<table>
<thead>
<tr>
<th>Immediate measures:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Inquire about fossil-free construction sites for major construction projects.</td>
</tr>
</tbody>
</table>

**By 2020:**

- The greenhouse gas budget and accounts are followed-up by a project plan and project reporting.

<table>
<thead>
<tr>
<th>Immediate measures:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Greenhouse gas accounting as a pilot project for a major renovation project.</td>
</tr>
</tbody>
</table>

**By 2020:**

- Introduce IT-based tools for environmental and climate change follow-up.
- Establish greenhouse gas budget for estate operations.
- Incorporate greenhouse gas reporting in UiO’s annual reports.
Reduced and renewable energy use
Energy consumption involves significant use of resources, causes direct or indirect greenhouse gas emissions and has major financial costs. The benefits from reducing energy consumption will come from all of these areas. UiO’s energy consumption can be divided into building-related consumption and consumption linked to user-controlled activities.

This strategy addresses building-related energy consumption.

### Targets for 2040

40 percent reduction in UiO’s building-related energy use per square metre by 2040.

### Targets for 2020

<table>
<thead>
<tr>
<th>Reduce energy consumption</th>
<th>Implement energy efficiency measures together with the users.</th>
<th>Further develop energy management in accordance with ISO 50001.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020: 15 percent reduction</td>
<td>2027: 25 percent reduction</td>
<td></td>
</tr>
<tr>
<td>2040: 40 percent reduction</td>
<td>2040: 40 percent reduction</td>
<td></td>
</tr>
</tbody>
</table>

**Immediate measures:**
- Establish a base year.
- Prepare an energy conservation plan for 2020.
- Prepare a check list for preferred low-energy solutions.
- Implement energy efficiency measures together with the users.

**By 2020:**
- Prepare a comprehensive analysis and action and financing plan for energy reduction.
- Plan for local energy production.

**Immediate measures:**
- Inquire about energy-efficient solutions for procurements in major construction projects.

**By 2027:**
- Include energy consumption as an incentive in the internal rent.

**By 2020:**
- Establish follow-up for the energy monitoring system used in the operation of all buildings.
- Prepare an annual energy report that includes results and measures.
Environmentally friendly transport
Transport has major consequences for both the environment and climate. With its three campuses, 28,000 students and 7,000 staff, UiO is dependent on many transport solutions – both for people and deliveries.

| Targets for 2040 |
| All transport related to UiO’s estate operations shall be emission-free |

| Targets for 2020 |
| Transport in the estate operations shall be fossil free by 2020. | Encourage more people to walk or cycle to work – or use public transport. | Facilitate the use of emission-free vehicles by employees and students. |

| Measures |
| Immediate measures: |
| ● Inquire about emission-free transport of people, goods and services for procurements by the Estate Department. |

By 2020:
| ● Only use emission-free vehicles for own transport. |

By 2020:
| ● Prepare a mobility plan. |
| ● Work together with Ruter to further develop and improve public transport services. |
| ● Provide good cycling facilities. |

By 2020:
| ● Establish modern infrastructure for parking and charging. |
Waste reduction and increased source separation
Waste and consumption are responsible for a significant part of the university’s environmental impact. Non-recycled waste is a squandering of resources. Some types of waste can also result in pollution and be damaging to health if they are not properly handled. Good waste management prevents this.

The University of Oslo has already introduced an expanded source separation scheme and good waste logistics.

### Targets for 2020

<table>
<thead>
<tr>
<th></th>
<th>UiO overall:</th>
<th>Construction projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>85 percent source separation rate</td>
<td>Facilitate reuse on campus</td>
<td></td>
</tr>
<tr>
<td>92 percent source separation rate</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>

### Measures

**Immediate measures:**
- Inquire about source separation rate of 90 percent for construction projects.

**By 2020:**
- Establish a comprehensive reporting solution for all waste at UiO.
- Reduce packaging, breakage and wastage on construction sites.

**Immediate measures:**
- Highlight good reuse practices in projects.

**By 2020:**
- Establish a common IT solution for the exchange and reuse of functioning equipment and materials.
- Evaluate costs and benefits of reuse.

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1. (kg) (base year: 2016)
Environmentally sound use of materials and resources
The use of materials in projects associated with maintenance, renovations and new buildings constitutes a large part of the environmental impact from the estate operations. The impact on the environment, health and climate will vary greatly depending on the materials that are chosen.

### Targets for 2040

**Select non-toxic building products and materials with a documented low carbon footprint**

### Targets for 2020

| |  
|---|---|
| Select materials with a documented low carbon footprint. | Select environmentally sound materials without any health hazards for new buildings and rehabilitation. |
| | | |
| | | ✓ |

### Measures

**By 2020:**
- Carry out pilot projects for climate-friendly materials.

**Immediate measures:**
- Inquire about environmental documentation such as EPD and Nordic Swan (Svanemerke) when purchasing products and materials.
- Base planning on the principles for the use of materials in BREEAM.

**By 2020:**
- Document the environmental and climate change impact of the choice of materials.
Procurement as a driver of environmental and climate change work in the estate operations
UiO’s estate operations account for about half of UiO’s total purchases of goods, products and services. We set requirements for products, deliveries and suppliers. In this way there is less risk of suppliers choosing older solutions that harm the environment and the impact on the environment and climate change is reduced.

<table>
<thead>
<tr>
<th>Targets for 2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use purchasing power to create environmental benefits and reduce greenhouse gas emissions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Targets for 2020</th>
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</thead>
<tbody>
<tr>
<td>Set environmental requirements for all procurements.</td>
</tr>
<tr>
<td>Set clear environmental requirements throughout the entire delivery chain.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Measures</th>
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</thead>
<tbody>
<tr>
<td><strong>Immediate measures:</strong></td>
</tr>
<tr>
<td>● Incorporate standard requirements.</td>
</tr>
<tr>
<td>● Evaluate and incorporate the BREEAM NOR requirements for procurements relating to construction projects.</td>
</tr>
<tr>
<td><strong>By 2020:</strong></td>
</tr>
<tr>
<td>● Document the environmental impact of the procurement requirements.</td>
</tr>
<tr>
<td><strong>Immediate measures:</strong></td>
</tr>
<tr>
<td>● Obtain an overview of the use of subcontractors.</td>
</tr>
<tr>
<td><strong>By 2020:</strong></td>
</tr>
<tr>
<td>● Prepare a summary of the relevant environmental requirements.</td>
</tr>
<tr>
<td>● Incorporate a requirement that ensures that 80 percent of all suppliers have environmental certification.</td>
</tr>
</tbody>
</table>
Efficient land use management that is beneficial for the environment and creates a pleasant working environment.
UiO has more than a hundred buildings that consist of a total of 472,000 square metres that are owned and 110,000 square metres that are rented. Use of space is one of the most important factors influencing our carbon footprint. By focusing on efficient use of space, we ensure that the benefits increase while the environmental impact decreases. Optimal use of space is also vital to well-being and health.

**Targets for 2040**

*UiO’s property shall be managed in the best interest of the environment, students and employees*

<table>
<thead>
<tr>
<th>Targets for 2020</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase area efficiency by five percent.</td>
<td>Immediate measures:</td>
</tr>
<tr>
<td></td>
<td>• Analyse use of space.</td>
</tr>
<tr>
<td></td>
<td>• Complete clean-up of existing storage areas.</td>
</tr>
<tr>
<td></td>
<td><strong>By 2020:</strong></td>
</tr>
<tr>
<td></td>
<td>• Establish systems and schemes that ensure better utilization of various areas.</td>
</tr>
<tr>
<td></td>
<td>Leased space shall make a positive contribution to UiO’s overall environmental efficiency.</td>
</tr>
<tr>
<td></td>
<td><strong>By 2020:</strong></td>
</tr>
<tr>
<td></td>
<td>• Inquire about environmental certification when space is leased.</td>
</tr>
<tr>
<td></td>
<td>• Inquire about “green annexes” and set environmental requirements when new contracts are established.</td>
</tr>
<tr>
<td></td>
<td>• The building’s environmental standard must be a criteria when selecting a lease object.</td>
</tr>
</tbody>
</table>
Environmentally efficient buildings
The management, maintenance and development of the buildings have an impact on climate change and the environment. Good building management is good for the environment. Good dialogue with users when planning the use of buildings can provide further environmental benefits. “Environmentally efficient” means high utility value but low environmental impact.

<table>
<thead>
<tr>
<th>Targets for 2040</th>
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</thead>
<tbody>
<tr>
<td><strong>Build, upgrade and manage the buildings in an environmentally efficient manner</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Targets for 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Further develop comprehensive environmental management in the estate operations.</strong></td>
</tr>
<tr>
<td><strong>At a minimum, new buildings must satisfy the BREEAM Excellent requirements.</strong></td>
</tr>
<tr>
<td><strong>Use BREEAM as the basis for environmental targets when buildings are renovated.</strong></td>
</tr>
<tr>
<td><strong>Good operations = green operations.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measures</th>
</tr>
</thead>
</table>
| **Immediate measures:**  
  - Determine environmental management scheme, for example, BREEAM-in-Use.  
  - Establish routines for replacing components if there is an environmental benefit.  
  - Sum up UiO’s experiences with new buildings and BREEAM NOR.  
  - Streamline the BREEAM process.  
  - Benchmark the environmental performance of green buildings.  
  - Sharing experiences: what makes a successful BREEAM process?  
  - Further develop the Estate Department’s project handbook by including the BREEAM criteria for standardized project execution.  
  - Highlight the connection between good and efficient operations and benefits for the environment and climate.  
  - Carry out a pilot project for good quality and environmentally efficient operations. |

By 2020:  
- Streamline the BREEAM process.  
- Benchmark the environmental performance of green buildings.  
- Sharing experiences: what makes a successful BREEAM process?  
- Further develop the Estate Department’s project handbook by including the BREEAM criteria for standardized project execution.  
- Highlight the connection between good and efficient operations and benefits for the environment and climate.  
- Carry out a pilot project for good quality and environmentally efficient operations.
Environmentally efficient outdoor areas that create a positive environment
UiO’s outdoor areas are a source of pleasure and recreation for students. They are important “lungs” in the city of Oslo. Good urban development solutions are required for animal and plant life to flourish. We shall facilitate the existence of robust ecosystems based on biological diversity and self-regulation.

### Targets for 2020

| Environmentally efficient use of walls and roofs with active roofs as part of the outdoor areas. | New, rehabilitated park areas shall satisfy UiO’s environmental goals. | Green management of the outdoor facilities and cycle-based park management. | UiO’s outdoor areas have a biodiversity that contributes to Oslo’s nature diversity. |

### Measures

**By 2020:**
- Establish a plan for active roofs.
- Carry out a pilot project for active roofs and natural climate regulation of buildings.

**By 2020:**
- Establish green-house gas accounts and calculate the effect of various measures.
- Set targets for:
  - organic waste
  - water consumption
  - fossil-free and emission-free machinery
  - use of plants

**Immediate measures:**
- Assess biodiversity on UiO’s campuses.
- Increase biological diversity by creating favourable conditions for flora and fauna.
- Establish a baseline for biodiversity.
Management, organisation and culture that promote the environment and climate and give green results
Emphasis shall be placed on the environment and climate change in development work, financial transactions, administration, projects and operations. Management who promote the environment and climate are focused on results and use of resources and on the work having an effect and providing benefits over time. A culture that promotes the environment and climate inspires curiosity and learning, values interdisciplinary cooperation and views operations from a long-term perspective.

### Targets for 2040

**UiO’s estate operations shall attract and retain employees and managers who are outstandingly professional in the area of the environment and climate change.**

### Targets for 2020

<table>
<thead>
<tr>
<th>The Estate Department’s organisation shall be further developed to meet environmental and climate change targets.</th>
<th>Involve UiO’s employees in the environmental work.</th>
<th>Involve UiO’s students in environmental work.</th>
<th>Cooperate with the Student Welfare Organization (SiO) on environmental solutions.</th>
<th>Cooperate with the City of Oslo on environmental solutions.</th>
</tr>
</thead>
</table>

### Measures

**Immediate measures:**
- Estate Department managers shall incorporate the environment and climate change into their plans and scorecards, and communicate this in the relevant forums.

**By 2020:**
- The management shall request results related to the environment and climate change.

**Immediate measures:**
- The environment and climate change shall be included in the ordinary dialogue meetings with UiO’s units.

**By 2020:**
- Report targets, measures and the results achieved in the environmental area.

**Immediate measures:**
- Further develop cooperation with the Student Parliament.

**By 2020:**
- Involve the students in selected environmental projects.

**Immediate measures:**
- Further develop solutions to reduce the volume of waste and increase the source separation rate.

**By 2020:**
- Cooperate on offering good environmental solutions for the students.

**Immediate measures:**
- Clarify areas of cooperation for Oslo as the European Environmental Capital in 2019.

**By 2020:**
- Further develop a dialogue and cooperation on a green city and campus development.
Outstandingly green expertise
Outstandingly green expertise is required in the planning phase, as well as in projects, management, operation of the buildings and the associated support functions in order for estate operations to be outstandingly green.

The Estate Department shall create space for an outstandingly green university. It will support UiO’s ambitions of being a leading European university.

### Targets for 2040

**Expertise on the environment and climate change in UiO’s estate operations shall be on par with the best in the property sector.**

### Targets for 2020

<table>
<thead>
<tr>
<th>Targeted development of environmental and climate change expertise across UiO’s estate operations.</th>
<th>Signal environmental ambitions in job advertisements related to UiO’s estate operations.</th>
<th>Increase the practical environmental expertise of UiO’s students.</th>
</tr>
</thead>
</table>

### Immediate measures:

- Conduct an assessment of needs and expertise.

**By 2020:**

- Establish a green competence development plan.

- Illustrate UiO’s environmental ambitions in announcements.

- Request relevant environmental expertise when recruiting managers.

**By 2020:**

- Set requirements for relevant environmental and climate change related expertise when recruiting.

- Conduct separation at source campaigns at the start of the semester.

**By 2020:**

- Conduct public awareness and action campaigns on UiO’s websites, social media etc.
Systems that assist and highlight environmental work
Professionalism and the implementation of the environmental work require systematic work. We must ensure that there is a minimum standard for safeguarding environmental conditions, promoting effective environmental and climate change solutions and facilitating the sharing of experiences.

Safeguarding and following-up environmental measures takes place within the accounting system, the quality assurance system for building management, Xpand, the procurement system, BREEAM, the Project Handbook, and the internal control systems for HSE.

### Targets for 2040

Have appropriate systems for the follow-up of UiO’s estate operations that support UiO’s vision for the environment and climate change.

### Targets for 2020

<table>
<thead>
<tr>
<th>Environmental standardisation of UiO’s estate operations.</th>
<th>Use the BREEAM methodology where appropriate.</th>
</tr>
</thead>
</table>

### Measures

**Immediate measures:**
- Clarify the environmental management system and any environmental certification.

**By 2020:**
- Complete environmental certification of UiO’s estate operations.
- Further develop responsibility matrices and the associated reporting systems.

**Immediate measures:**
- Highlight benefits from BREEAM.
- Clarify when and how BREEAM is to be used.

**By 2020:**
- Incorporate BREEAM NOR guidelines in the relevant management systems.
UiO’s estate operations: Outstandingly green