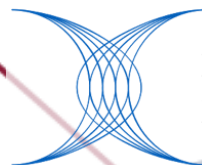


# UNIVERSITY OF COPENHAGEN THE MAERSK TOWER

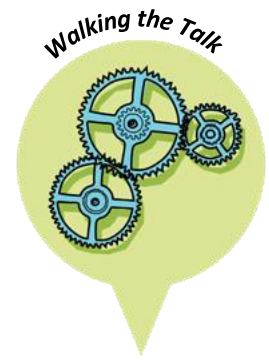
Reducing the Environmental Footprint of Buildings & Promoting the UN  
Sustainable Development Goals



UNIVERSITY OF  
COPENHAGEN



INTERNATIONAL ALLIANCE OF  
RESEARCH UNIVERSITIES



# University of Copenhagen The Maersk Tower:

Reducing the Environmental Footprint of Buildings & Promoting the UN Sustainable Development Goals

## Introduction

In June 2017, [The Maersk Tower](#) opened - a 42,700 m<sup>2</sup> building to accommodate new, modern biomedical laboratory facilities, classrooms, auditoriums, canteen, bicycle storage and a new main entrance for the Faculty of Health at the University of Copenhagen. The planning and construction of the building designed by C. F. Møller Architects started in 2010, with the architecture based on an idea of creating communities – between researchers, students, and the city. A. P. Møller and Chastine Mc-Kinney Møller Foundation for General Purposes contributed donations to this project and the remaining funds came primarily from an allocation of funds for the modernization of university laboratory facilities. The Danish Building and Property Agency led the Tower construction. Sustainability, and particularly energy efficiency, was prioritized in the construction of the Tower, which is built to resist future climate change.



Aerial View of The Maersk Tower (Photo Credit: University of Copenhagen)

## Objectives

While the project started before the launch of the SDGs, a number of the global goals are incorporated and highlighted in the building. The aim of the project was to create a building with solutions to sustainability challenges, both in its design and construction. The Maersk Tower has reached this objective through a number of initiatives:

- Flexible and open space research facilities, facilitating interactions and new learning spaces for researchers (SDG 9)
- Green roofs enhancing biodiversity, delaying storm water and cooling the building roofs (SDG9, SDG11, SDG13, SDG15)
- Collection and reuse of rainwater (SDG 6, SDG 12)
- Carbon-friendly district heating and cooling and solar panels (SDG13)
- Energy efficient laboratories (SDG13)
- Optimal conditions for cyclists in order to promote biking as much as possible (SDG 11)
- The campus park strengthens biodiversity and serves as a green breathing space for both students and employees in the area (SDG 11, SDG 15)



## Challenges & Successes

Laboratory buildings are by far the buildings with the largest environmental footprint at HEIs, and require complex technical solutions, which makes sustainability a challenge. To address this, the Maersk Tower focused on integrating a palette of significant and holistic solutions to sustainability without compromising its world-class research facilities. Even though there were considerable budget challenges during planning and construction, partners maintained a persistent commitment to sustainability. One exemplar success, during the design process the tower's ventilation concept was converted to loop-ventilation - a less energy-consuming concept – which is currently new to laboratory buildings in Denmark.



The Maersk Tower Underground Bicycle Parking Lot (Photo credit: University of Copenhagen)

## Next Steps

In terms of sustainability, the Maersk Tower is the University of Copenhagen's most ambitious and comprehensive project yet, and thus leads the way for future projects. The project will hopefully push sustainability focus and priority for future buildings. The Maersk Tower demonstrates that it is possible to construct an impressive, high-level research building that significantly and holistically integrates sustainability and addresses a number of the SDGs. It is an example to follow, and therefore considerable efforts are made to communicate the Maersk Tower and its sustainability aspects. Learn more about [Sustainability in the Maersk Tower](#).

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