

Environmental and Social Data Sheet

Overview

Project Name:	Tyndall National Institute – UCC
Project Number:	2020-022
Country:	Ireland
Project Description:	The project involves the demolition of an existing unused former industrial building and construction of a new research facility for Tyndall National Institute (TNI) providing modern research and development laboratories and facilities to support expansion. The new project will also renovate parts of the existing TNI building (Block A) to make improvements in the energy efficiency and increase functional flexibility of these spaces. In total, the project will create and renovate just over 17,000m ² of research and development space across the TNI complex. Moreover, the project includes significant investment in the upgrading of existing R&D equipment.
EIA required:	To be confirmed
Project included in Carbon Footprint Exercise ¹ :	No

Environmental and Social Assessment

Environmental Assessment

The project comprises the demolition of an unutilised building and construction of a new building extending the existing Tyndall National Institute (TNI) within the city of Cork. The project also includes renovation of multiple parts of the existing TNI facility complex to improve the energy performance and functional use of those buildings plus investments in new equipment to upgrade the capability of TNI. The new building will provide state-of-the-art research and development facilities for TNI and University College Cork (UCC) to continue its innovative research work in the fields of photonics, micro- and nano-electronics and electrical systems in fields ranging across life sciences, energy, communication technology and the environment.

The new building will complement the existing adjacent structures, respecting and in compliance with the agreed UCC campus masterplan. The new extension building will be designed to be a nearly zero energy building (NZEB) with an enhanced design brief to

¹ Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO₂e/year absolute (gross) or 20,000 tonnes CO₂e/year relative (net) – both increases and savings.

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produce onsite renewable energy to offset almost all of its energy consumption. The new building will include many passive design measures in an attempt to reduce significantly its primary energy consumption. Moreover, the design of the new building intends to exceed the NZEB reference building within current Irish building regulations and reduce primary energy consumption potentially by more than 20%. In addition, the building will seek to use renewable energy sources to deliver onsite energy production reducing its CO₂ emissions. A copy of the energy model and on completion a copy of the energy performance certificate will be requested by the EIB.

The renovation investments will seek to replace windows, roofs and replace obsolete heating and ventilation systems and improve the building fabric for improved energy efficiency. The renovations will also increase the flexible use of these spaces for TNI and include additional renewable energy apparatus. One building being renovated has achieved its development consent will seek to achieve a building energy rating (BER) of A3, rating the renovated building as highly energy efficient.

Universities and research facilities of this kind are not specifically mentioned in the EIA Directive 2014/52/EU amending Directive 2011/92/EU, though Annex II of the Directive in relation to urban development covers the project. The promoter has stated that an environmental impact assessment is unlikely to be required, though the new building and other renovation investments are subject to a screening process and confirmation by the competent authority. Only one renovation project has achieved its development consent and no EIA was required. Should the competent authority require an EIA for the new building or any of the renovation investments, the promoter shall be required to provide to the EIB the full EIA document.

Other Environmental and Social Aspects

The project's location is adjacent to the River Lee, which is also within a flood risk zone. The new building will require an enhanced foundation solution and is expected to include other additional measures to ensure the new extension is resilient to future climate change and the effects of localised flooding. The promoter has confirmed that should asbestos or other harmful substances be encountered during the demolition works, they will be removed and disposed of using appropriate measures in accordance with national and European legislation.

The project will enable TNI to strengthen and enhance its innovative research and development activities. This investment will enable TNI to further attract the best researchers and work with industrial partners to sustain the world-class research taking place at TNI. The outcomes from research at TNI and its participation in wider research groups has provided significant improvements to decarbonising systems, reducing energy consumption, improving health and medical practice and communication technologies in Ireland and around the world.

Conclusions and Recommendations

The project is enabling TNI to expand and improve its innovative research and development facilities complemented by the renovation of other building facilities within the TNI complex. The project is part of an ongoing strategic programme to modernise and reduce energy consumption and CO₂ emissions within the UCC building estate and enabling the enhancement of the research and working environment for its staff and students alike. Due to the investment and use of new materials and technologies, the new building and renovation investments will increase the overall energy efficiency of UCC's main campus.



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The EIB will request a copy of the full EIA if required by the competent authority or a decision notice not requiring an EIA. Moreover, the EIB will request a copy of the energy model report and the planning permission for each of the building components verifying the acceptance of the building's design for energy efficiency measures to be implemented. In addition, the EIB will request a copy of the Energy Performance Certificate(s) (EPC) or equivalent and a copy of the energy simulations that will be provided on completion of the new building.

In light of the above, the overall environmental and social rating of the project is therefore considered to be acceptable for the Bank's financing.