

An assessment of capital projects at the University of Malta

April 2023





Performance Audit

An assessment of capital projects at the
University of Malta

Report by the Auditor General
April 2023

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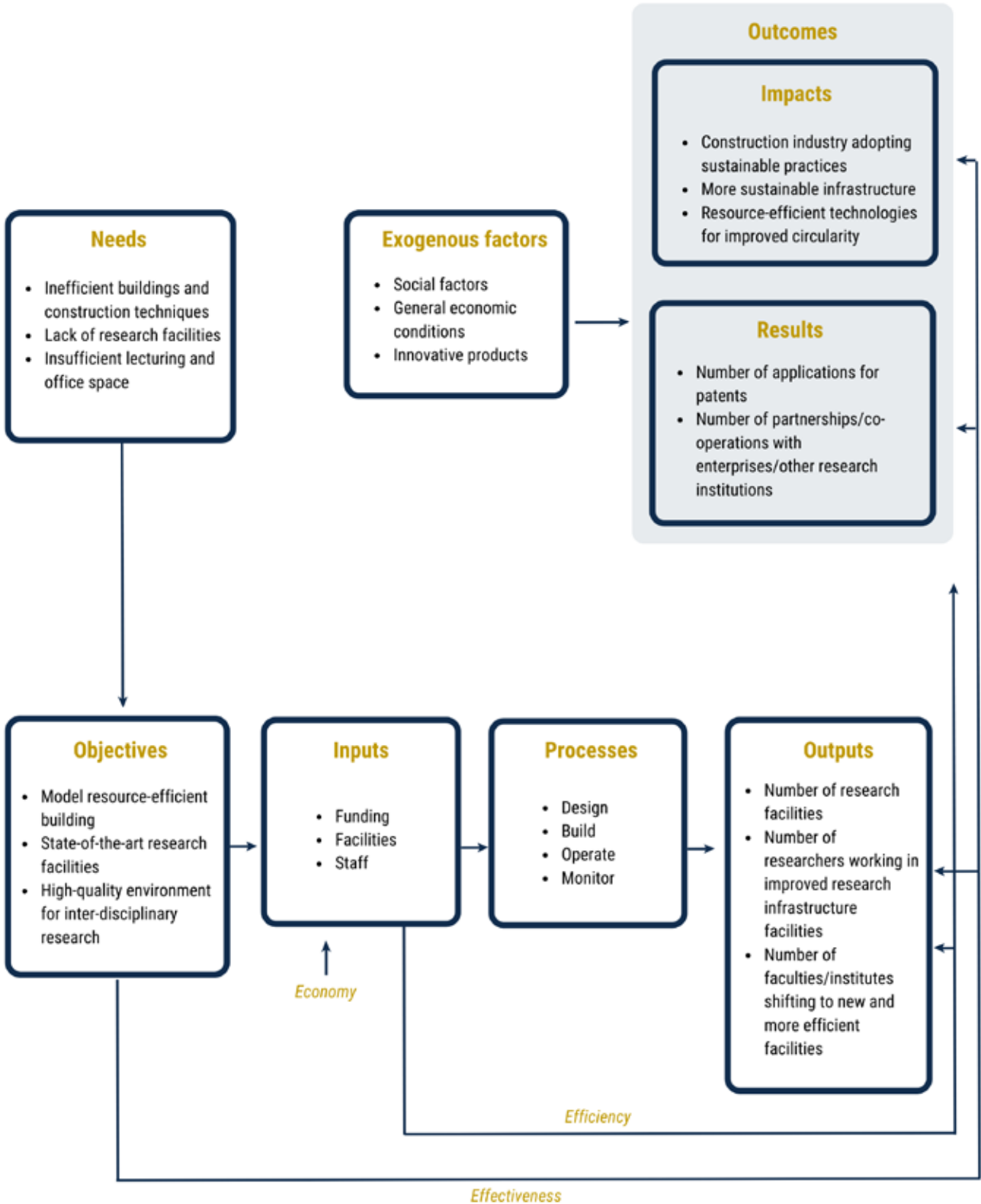
List of Abbreviations

BMS	Building Management System
BoQs	Bill of Quantities
CBA	Cost Benefit Analysis
CHL	Campus Holdings Limited
CRML	Campus Residence Malta Limited
cum	Cubic Meter
DoC	Department of Contracts
DNSH	Do No Significant Harm
ECA	European Court of Auditors
ECTS	European Credit Transfer and Accumulation System
EIA	Environmental Impact Assessment
ENPV	Economic Net Present Value
EPS	Expanded Polystyrene
ERDF	European Regional Development Fund
EU	European Union
EY	Ernst & Young Ltd
FIDIC	Fédération Internationale des Ingénieurs Conseils
FNPV	Financial Net Present Value
GHG	Greenhouse Gas Emissions
GOA	General Obligations Agreement
GPP	Green Public Procurement
GVA	Gross Value Added
ISSAIs	International Standards of Supreme Audit Institutions
JASPERS	Joint Assistance to Support Projects in European Regions
KPI	Key Performance Indicators
LEED	Leadership in Energy and Environmental Design
Ltd	Limited
M&E	Mechanical and Electrical
MDH	Mater Dei Hospital
MIMCOL	Malta Investment Management Company Limited
MUHC	Malta University Holdings Company
MUR	Malta University Residence
NAO	National Audit Office

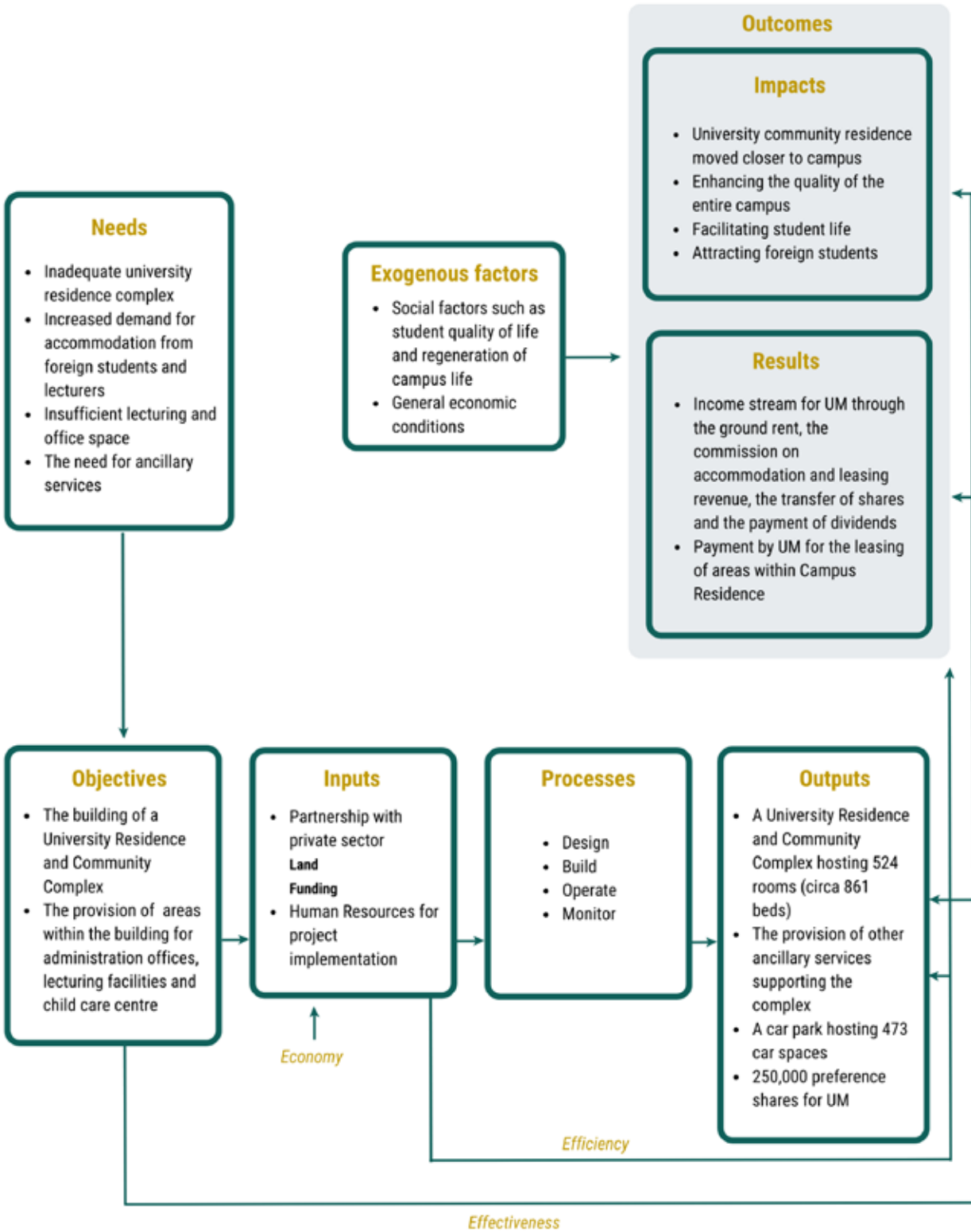
NAP	National Action Plan
NPV	Net Present Value
NRIAP	National Research and Innovation Action Plan
NRIS	National Research and Innovation Strategy
PLM	Programme Logic Model
PPCD	Planning and Priorities Co-ordination Division
PPP	Public Private Partnership
PPR	Public Procurement Regulations
PSC	Project Selection Committee
PV	Photovoltaic
PwC	PricewaterhouseCoopers
R&D	Research and Development
RDI	Research, Development and Innovation
RfP	Request for Proposals
RfQ	Request for Quotation
SCH	Superintendence of Cultural Heritage
SLC	Sustainable Living Complex
sqm	Square Meters
ToR	Terms of Reference
UM	University of Malta
VVVF	Variable Voltage Variable Frequency
XPS	Extruded polystyrene

Key Facts

Sustainable Living Complex



Campus Hub



Executive Summary

Introduction

1. The Sustainable Living Complex (SLC) and the Campus Hub are two major projects, which are owned by the University of Malta (UM) and are located on the University's grounds. These projects are very diverse in nature, objectives, financing and implementing model. Nonetheless, they both seek to embrace the UM's strategic direction by broadening the delivery of academic services, attracting and diversifying more its student base, increasingly engaging in research and development as well as facilitating life on Campus. At the time of drafting this Report, the estimated cost of these projects amount to €48 million and €46.7 million respectively. In view of the materiality involved and the relevance of these projects in meeting the UM's present and future needs, this performance audit sought to determine the extent to which capital projects are fulfilling the University's needs in a cost-effective manner. This entailed determining the extent to which the UM is able to deliver major capital projects in accordance with its strategic objectives and which embrace sustainability principles by determining the extent to which:
 - i. the appropriate mechanisms are in place to ensure that capital projects contribute towards the effective implementation of the UM Strategic Plan;
 - ii. an effective capital projects procedural framework is in place; and
 - iii. the capital projects resulted in the desired outcomes and in good value for money.

The UM Strategic Framework

2. The UM's Strategic Plan 2020 – 2025 outlines strategic themes, which highlight the need for UM to have an ecosystem of infrastructure and educational support, which promotes an environment conducive to high-quality teaching and research. This implies that there are no cross references linking strategic measures to specific capital projects. Consequently, monitoring entails matching strategic themes and measures to projects' objectives.
3. This review established that the UM has the appropriate mechanisms in place to implement and monitor strategic developments vis-à-vis capital projects. The following refers:
 - i. The implementation of the UM's strategic objectives is monitored through the Office of the Pro-Rector for Strategic Planning and Enterprise, the Internal Audit Unit and the Infrastructure Steering Committee. These three organs work independently of each other but all report to the UM's Council.
 - ii. This organisational framework contributed towards ensuring that both the SLC and the Campus Hub projects embrace the UM's strategic goals.

The Sustainable Living Complex

4. The SLC constitutes a project of 10,118 square metres and is estimated to cost around €48 million. The structure shall house several UM faculties, institutes and research facilities, within a prototype resource-efficient, low-carbon building, using a variety of experimental and innovative construction techniques and materials. The project was expected to be completed in shell form by the third quarter of 2022.¹ However, this deadline was not attained as the site progress was hindered by the initial excavation contractor abandoning the site and various other project externalities. Evaluations carried out by the National Audit Office (NAO) revealed the following:
- i. The SLC project is on track to:
 - provide opportunities for teaching and training through the monitoring of the design process, the pre-construction simulation and construction processes;
 - serve as an instrument for attending students to change their lifestyle and act as agents of communication to society in respect of using “sustainable” buildings; and
 - create the scenario for a multi-disciplinary research eco-system bridging across different but related disciplines.
 - ii. The project complied with European Union (EU) co-financing regulations in terms of a sound business case, consultations with stakeholders, financial aspects, and contractual clauses which embrace best practices to safeguard the UM’s and stakeholders’ interests.
 - iii. The SLC Project was originally intended to be completed by end 2018, together with the Campus Hub. However, in view of the considerable size of this project, its innovative concept as a ‘live laboratory’, the workload involved in the design and processing of an extensive number of tenders, as well as for EU funding-related matters, the target completion date as set by the UM in the European Regional Development Fund (ERDF) Grant Agreement was postponed to September 2022. A new project completion date is now being negotiated with the EU Commission for end December 2023.
 - iv. Despite that the SLC was subject to cost variations, due to external factors influencing the construction industry, the project costs concur with the rates prevailing within the industry.
 - v. The SLC scored highly against criteria included in the project’s Cost Benefit Analysis (CBA) relating to design sustainability. On the other hand, the opportunity exists for the University and other public entities to increasingly consider embracing project-life cycle guidelines.

The Campus Hub

5. The Concession agreement related to the Campus Hub project enabled the provision of several facilities including student accommodation, a language school, university office space, lecture halls and student amenities. The latter include a convenience store, electronics store, pharmacy,

¹ <https://qpml.com/industry-insights/sustainable-living-complex-project/> as at 8 March 2023.

stationery and other ancillary commercial space, including a food court and restaurants, commercial outlets as well as an underground car park. The University's input in this project was around 8,781 square metres of the UM owned land.² On the other hand, the successful bidder for this project, that is Vassallo Builders Group Ltd, was responsible for the setting-up of a subsidiary company, namely Campus Residence Malta Limited (CRML), which would be wholly responsible for designing, building and operating this project for a period of 60 years. Considering all the floor areas within this complex, this would entail a total floor area of around 80,709 square metres.

6. The UM's main returns from this concession would be financial reimbursements in the form of an annual ground rent as well as financial commissions according to the contractual terms and agreement regarding revenue generated through residents referred by the UM for accommodation facilities and the leasing of commercial outlets. The University would also be able to lease space within the Campus Hub from CRML at agreed rates. At the end of the sixty years agreement, the Contractor (CRML) would be obliged to return the Campus Hub infrastructure to the UM in good condition subject to normal fair wear and tear. On the other hand, the Contractor claims most of the profits generated through the project while assuming the risks of project design, delivery and operations.
7. The transferring of the University's project risks to the Contractor implies a pre-tax net present value of up to €11.6 million. This performance audit Report found that the conception stage of the project, such as project planning, influenced Government's, and more specifically the UM's, ability to negotiate a better all-round deal when transferring the project risks to the contractor in this concession arrangement. The following refers:
 - i. One of the main aims of the Campus Hub concession related to the transferring of project risk to the contractor for a period of sixty years, following which the project infrastructure is returned to the UM in a good condition. Pre-tax and post-tax evaluations confirm that the concession arrangement was a financially feasible way to implement the project, particularly as UM was not permitted to raise the required capital to enable the project to go ahead. The NAO estimated that the transfer of project risks had a maximum pre-tax Net Present Value (NPV) of €11.6 million.
 - ii. During the early stages of project planning, consultation and coordination with stakeholders was not widespread. For instance, prior to the issuance of the Request for Proposals (RfP) stage, consultations and coordination excluded a formal public consultation on the project as well a broad discussion with the major stakeholders. This resulted in changes to the project's design and objectives at a later stage as the UM's needs were not clearly identified or crystallised. These changes not only brought about an element of delay and increasing costs but also student protests related to car park fees. Moreover, to date, the possible relocation of the Medical School remains an outstanding and potentially costly issue.

² Land area is based on PA/7926/2016. The area was increased to 9,018sqm through PA/07628/20.

- iii. Additionally, changes to the project design and objectives following the issue of the RfP implies the changing of tendering conditions. If the new terms and conditions were to be known at an earlier stage, these would have been included in the tendering process and potentially influenced positively the competitive element.
- iv. A detailed project financial evaluation was only carried out as part of the tender evaluation process rather than at project inception stage. The UM argued that, at the preliminary stage of this project, the University sought consultancy services with respect to the project's viability of the proposed approach. Nonetheless, by the time of drafting this Report, the UM did not forward the ensuing consultancy report as, it was stated, that it was lost during the transfer of the Malta University Holdings Company (MUHC) offices from Lija to Campus Hub. Consequently, the NAO has no visibility as to the conclusions and recommendations of this report.
- v. The UM's issue of a RfP related to the concession arrangement of the Campus Hub is considered as complying to the legislative framework concerning procurement. Nonetheless, the UM forfeited the opportunity of benefitting from the Department of Contracts (DoC) expertise in the issuing of a tender and the drafting of the concession agreement. DoC's expertise would have contributed towards further safeguarding signatories' and stakeholders' interests as well as broadened the competitive element surrounding this concession.

Concluding Remarks

- 8. This performance audit has shown that the SLC and the Campus Hub projects have the potential to enrich University life. This review has also confirmed that the UM's administrative framework has the appropriate capacity to implement capital projects of significant magnitude. Yet their impact in financial, economic and social terms could have increased through better communication, coordination and planning.
- 9. While the SLC embraced and adhered to processes advocated by EU co-financing regulations, the Campus Hub entailed significantly more complexities through the concession model adopted. This performance audit acknowledges the benefits of PPPs and concessions. Yet on a government level it is abundantly clear that more needs to be done to ensure that such projects do not fulfil effectiveness criteria at any price. Rather, the value of such partnerships should be in reaching an equilibrium between the signatories of such agreements regarding the respective benefits, risks and obligations.
- 10. In view of the findings and conclusions emanating from this audit, the NAO is proposing a number of strategic, general as well as project specific recommendations. Chapter 5 of this Report lists the proposed recommendations.

Chapter 1 | Terms of Reference

1.1. Introduction

- 1.1.1. The University of Malta (UM)³ is composed of 14 Faculties, 18 Institutes, 13 Centres and three Schools in total. The UM caters for some 11,300 students following full-time or part-time degree and diploma courses. These include around 1,500 international students from 127 different countries and 600 visiting overseas students. Furthermore, there are approximately 2,000 pre-tertiary students registered at the Ġ.F. Abela Junior College.⁴
- 1.1.2. The University is one of the largest employers in Malta, with around 4,220 employees: 860 full-time and 2,100 part-time academics, 1,010 full-time and 250 part-time staff in administrative, technical and industrial roles. Figure 1 refers.⁵

Figure 1: UM’s data sheet



³ The terms 'University of Malta' and 'University' are being used interchangeably throughout this Report.

⁴ <https://www.um.edu.mt/about/facts/> as at 8 March 2023.

⁵ <https://www.um.edu.mt/media/um/docs/about/strategy/UMStrategicPlan2020-2025.pdf> as at 8 March 2023.

- 1.1.3. Along with a considerable student population as well as the availability of qualified and experienced staff, infrastructure plays a key role in ensuring that the UM services can be delivered in an efficient and effective manner. The UM operates from four campuses located in Msida, Valletta, Marsaxlokk and Gozo, with two outreach centres in Argotti and Cottonera.
- 1.1.4. Having adequate infrastructure constitutes a key component of one of the eight main strategic themes entitled “Services and Administrative Support”⁶ of the Strategic Plan 2020 – 2025. The same Plan acknowledges that large-scale capital projects generally offer various challenges, particularly in ensuring efficient use of resources while meeting present as well as future needs.⁷
- 1.1.5. In addition to the existing infrastructure that needs to be maintained, the UM also invests in refurbishment as well as new buildings in order to meet the various demands and needs. The 2014 – 2018 Business Plan recognised that:
- i. by 2017 the then current infrastructure will not support the University’s new requirements; and;
 - ii. the infrastructural problem is being aggravated as the Faculty of Medicine and Surgery, the Faculty of Health Sciences and the Faculty of Dentistry are systematically being squeezed out of Mater Dei Hospital.
- 1.1.6. In recent years, the UM invested more than €184 million from national and European funds in 11 capital projects whose materiality range from €2.8 million to €48 million. This investment stems mainly from three new large-scale capital projects, namely the Sustainable Living Complex (SLC), the TRAKE building and the Campus Hub, with an estimated total cost of around €48, €37 and €46.7 million respectively. Table 1 refers.

Table 1: UM’s Capital Projects

Capital Project	Total Estimated Cost (€ million)
Material Engineering Laboratories	7.2
TRAKE Building	37
Sustainable Living Complex Research Project	48
Maths and Physics Building Extension	2.8
Blue Building	18
Campus Hub	46.7
Gozo Dental Clinic	3.2
Gozo Campus extension and refurbishment	5
Junior College Refurbishment	7
Lecturing Spaces Refurbishment	5
Valletta Campus Refurbishment	5

⁶ <https://www.um.edu.mt/about/strategy/> as at 12 January 2023.

⁷ <https://www.um.edu.mt/about/strategy/strategicplanningprocess/downloadstrategicplan/> as at 8 March 2023.

1.1.7. In view of the materiality involved and the relevance of these projects in meeting the UM's present and future needs this performance audit sought to determine the extent to which capital projects are fulfilling the University's needs in a cost-effective manner. To this end, this audit focused on two-large scale projects, namely the Sustainable Living Complex and the Campus Hub. The National Audit Office (NAO) targeted these projects in view of the substantial financial materiality involved, their specific objectives within the UM's strategic development as well as to enable comparative analysis between the execution of UM and European Union (EU) co-financed projects.

The Sustainable Living Complex

1.1.8. The SLC project, located along the South-Western section of the ring road around the University of Malta and directly abutting Triq Dun Karm (B'kara Bypass) has a total owned footprint of 10,811 sqm. With an estimated total cost of around €48 million, the SLC project shall house several UM faculties, institutes and research facilities, within a prototype resource-efficient, low carbon building, using a variety of experimental and innovative construction techniques and materials. The project was expected to be completed in shell form by quarter three of 2022.⁸ However, this deadline was not attained as the site progress was hindered by the initial excavation contractor abandoning the site and various other project externalities.

1.1.9. The SLC project is primarily intended to attain the following objectives:

- i. to provide opportunities for teaching and training through monitoring of the design process, the pre-construction simulation and construction processes;
- ii. to serve as an instrument for attending students to change their lifestyle and act as agents of communication to society in respect of using "sustainable" buildings; and
- iii. to create the scenario for a multi-disciplinary research eco-system bridging across different but related disciplines.

1.1.10. The total estimated project cost amounts to €47.9 million. The EU grant, through the ERDF 2014-2020 programming period under Operational Programme I's (OPI) Priority Axis 1 (Investing in research, technological development and innovation), is capped at €30 million (effectively representing a rate of 62.68 per cent), with the remaining non-EU funded eligible costs being financed directly by Government, that is also responsible to meet the operating costs of the project over its useful life and any replacement expenditure required.

The Campus Hub

1.1.11. The Campus Hub project is located on an irregular shaped portion of land, measuring circa 8,781 square meters (sqm) and is situated on the site previously occupied by Calamatta Garden Centre with Mater Dei Hospital to West, and the University of Malta to the East. The capital cost relating to this project as at end December 2022 amounted to around €47 million.

⁸ <https://qpml.com/industry-insights/sustainable-living-complex-project/> as at 8 March 2023.

1.1.12. In 2015, the UM, issued a competitive tender for interested private parties to participate in developing and operating student accommodation and educational and sports facilities. As a result of this process Vassallo Builders Group Ltd. was awarded this contract to develop and operate this complex.

1.1.13. The aim of the Campus Hub project was to provide several facilities including student accommodation; language school; gym and pool; university office space; lecture halls; student amenities including a mini convenience store, electronics store, pharmacy, stationery and printing services, post office, multi-faith room, study area, launderette; ancillary commercial space including food court, restaurant, coffee shop, wine bar, general commercial; and, an underground car park. Vassallo Builders Group Ltd is responsible to develop and operate this complex through a Public Private Partnership (PPP) venture.

1.1.14. As at end 2022, the Campus Hub project was estimated to be 75 per cent complete. This situation materialised in view that Block A was constructed in shell form up to Level 6, with four outstanding floors. The work is halted due to an agreement between the UM and the contractor, whereby Government had up to December 2022 to decide whether the remaining floors in Block A will be allocated for the Medical School.

1.2. Audit Objectives

1.2.1. Against this backdrop, this audit aimed to determine the extent to which capital projects are fulfilling the University's needs in a cost-effective manner. The Study shall therefore determine the degree to which:

- i. the appropriate mechanisms are in place to ensure that capital projects contribute towards the effective implementation of the UM Strategic Plan;
- ii. an effective capital projects procedural framework is in place; and
- iii. the capital projects resulted in the desired outcomes and in good value for money.

1.3. Methodology

1.3.1. The attainment of the aforementioned objectives entailed a number of methodological approaches. These involved the following:

- i. **Adherence to ISSAIs:** The audit was carried out in accordance with the Standard for Performance Auditing, International Standards of Supreme Audit Institutions (ISSAI) 3000.
- ii. **Documentation review:** This included a review of project documentation such as the Cost Benefit Analysis (CBA) relating to the SLC project, the Request for Proposals relating to the Campus Hub project, the tenders issued, the contractual agreements between the parties involved as well as minutes of infrastructure committee meetings and Council.

- iii. **Semi-structured interviews:** These interviews enabled the collation of qualitative data, which in turn was used to corroborate information arising from other sources and approaches. To this end, the NAO interviewed key officials responsible for the management of these two projects and senior officials within other governmental entities. The latter included the Department of Contracts, Malta Investment Management Company Limited (MIMCOL) and the Planning and Priorities Co-ordination Division (PPCD).
- iv. **Analysis:** This audit carried out various analysis including benchmarking exercises. This was carried out through various pre-established criteria. Two key models used in the review of these two capital Projects were the Programme Logic Model (PLM) and the Sustainability Checklist.
- The PLM is a tool utilised by the European Court of Auditors (ECA) to help in the identification and setting out of the relationship between the socio-economic needs to be addressed by the intervention, in this case a capital project, and its objectives, inputs, processes, outputs and outcomes, which include results and impacts.⁹
 - The Sustainability Checklist is based on a detailed literature review and presents the various sustainability related aspects that should be considered throughout the lifetime of a capital project. It is intended to serve as an early and comprehensive self-assessment tool, to be utilised during the various phases of activity, to ensure the sustainability of the procured infrastructure, including by public buyers. In view of the extended lifetime of infrastructure projects, the Sustainability Checklist aims at supporting an analysis of infrastructure across the entire life cycle. The six phases of activity to procure sustainable infrastructure include the following:
 - Preparation for tendering
 - Tendering
 - Construction
 - Use
 - Maintenance and operation
 - End-of-life
- v. **Value for money analysis:** This Office sought to evaluate whether the estimated costs reflect market prices, the net present value of the project, the degree to which variations were justified, signs of under / over design as well as variations. To this end, the NAO engaged the service of consultants to assist the audit team in technical matters.

1.3.2. All issues presented in this report reflect the situation as at end 2022. This date reflects a situation whereby the SLC project was still in the construction phase whereas the Campus Hub projects' contractor did not receive any communication by Government regarding the building up of the Medical School on the same premises.

⁹ <https://methodology.eca.europa.eu/aware/PA/Pages/Concepts/Intervention-logic.aspx> as at 21 March 2023.

Audit Limitations

1.3.3. Despite the various methodological approaches adopted, this review encountered a number of limitations. These limitations and the mitigating approaches adopted will be discussed in detail in the relevant Chapters. Nonetheless, hereunder is a brief outline of the difficulties encountered:

- i. **Project completion:** Both projects had substantial outstanding works to enable their completion and commissioning. In the case of the SLC project, delays in the beginning of the investment hindered the project construction phase from being completed by 2022. This situation impinged on the degree to which this Office could assess the intended outputs and outcomes of this project. In the case of the Campus Hub an addendum to the original agreement, to possibly include the medical school as part of this project, hindered project completion. As Government did not take any decision regarding the medical school, any financial evaluations can be subject to the variables taken into account. To this end, this Office was constrained to review the two most material contracts relating to the SLC project and evaluate the Campus Hub project without considering the possible development of Block A into the Medical School. This decision was taken as this Office was not privy of details discussed between the parties involved and any assumptions in this regard, may skew the decision-making process.
- ii. **First year of operation:** The Campus Hub project started its operations as accommodation premises in January 2022. Moreover, a number of commercial outlets registered their first sales in the last week of September 2022. This situation implies that analysis between projections and actual results could be somewhat limited in view that, as literature shows, the first year of operation can be characterised by problems associated with the commencement of the project.
- iii. **Comparative analysis:** The SLC project is considered to be the first of its kind as it is built to serve as a living laboratory to test new building methodologies and materials in a real-life scenario. This state of affairs rendered it difficult to compare it to other buildings having the same characteristics. However, since the project followed the same procedures such as EU funds and procurement mechanisms, this Office resorted to national regulations on the subject matter. Moreover, this Office engaged consultants to provide the required technical support.

1.4. Report Structure

1.4.1. Following this introductory Chapter, the Report proceeds to discuss the following:

- i. Chapter 2 discusses the degree to which the UM's Strategic Plan 2020- 2025 provides the required inputs to support capital projects. Moreover, this Chapters seeks to determine the degree to which the UM's Capital Projects contribute to the attainment of the University main strategic objectives.

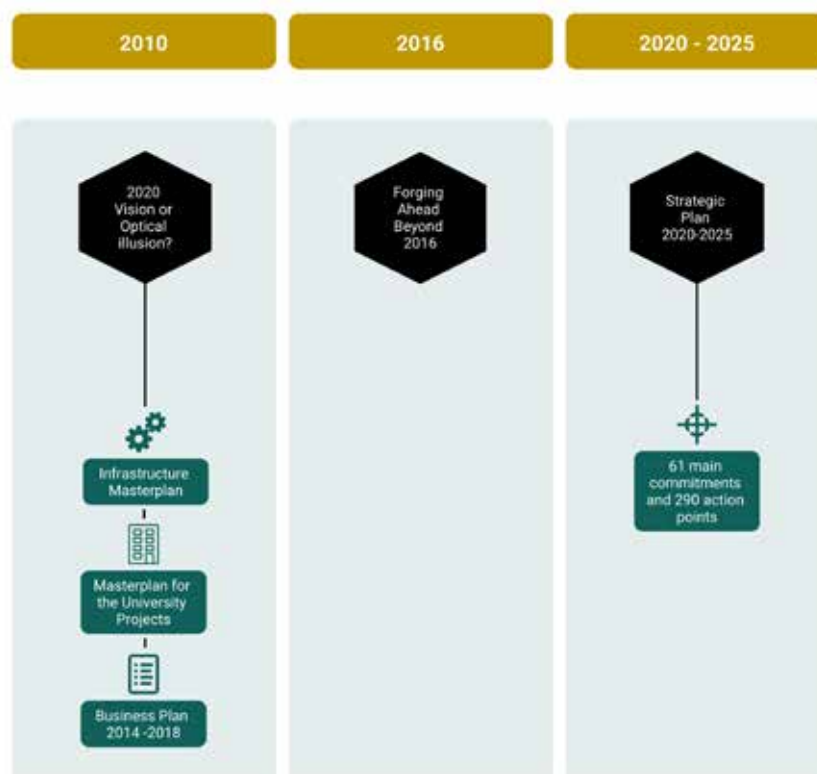
- ii. Chapter 3 evaluates the extent to which the SLC project management reflect generally accepted project procedural framework and the investments considers value for money concepts.
 - iii. Chapter 4 analyses the degree to which the UM carried out robust financial analysis prior to embarking on the Campus Hub project. It also seeks to determine whether the UM's deal relating to the Campus Hub project reflects value for money considerations.
 - iv. Chapter 5 presents the conclusions of this assignment through a comparative analysis of the two projects and eliciting lessons learned.
- 1.4.2. The overall conclusions and recommendations related to this performance audit are presented in Chapter 5 from page 79 to 82.

2.1. Introduction

2.1.1. The University of Malta's (UM's) strategic vision covering the period 2010 to 2025 was documented through three key high-level documents. The Strategic Plan for 2010 and the strategic document for 2016 refer to specific projects as these portray the incumbent Rectors' vision and plans. On the other hand, the Strategic Plan 2020 – 2025 takes a different approach, by outlining strategic themes, which, amongst others, highlight the need for the UM to have an ecosystem of infrastructure and educational support that, promotes an environment conducive to high-quality teaching and research.

2.1.2. During these 15 years, the UM complemented the main strategic documents with other detailed plans. In the case of the Strategic Plan 2020 – 2025, it was complemented by enabling principles which the strategy refers to as main commitments and action points. Figure 2 refers.

Figure 2: The UM's strategic framework



Notes to the Figure:

- The Masterplan for the University projects aims to accommodate the needs of a modern, thriving, 24/7 campus by decentralising the campus from the Quadrangle. This high-level plan gives structure to existing projects and future investment and infrastructure projects.
- The infrastructure masterplan details the services required to be available to facilitate the projects highlighted in the Masterplan for the University projects. These services include utilities and roads.

2.1.3. Figure 2 shows that the UM over the years has developed what could be considered its strategic framework. While, to a certain extent, the UM's vision was documented, the Masterplan for University projects and the Infrastructure Master Plan were drawn up but were not adopted. However, the infrastructure masterplan was not developed further to include the required details, such as those related to services including fibre optic cables.

2.1.4. This performance audit seeks to evaluate the UM's Strategic Plan 2020 – 2025 in terms of the implementation of its main commitments and action points through the review of the Sustainable Living Complex (SLC) and Campus Hub projects. Within this context, and taking into account the objectives of this performance audit, this Chapter presents the following analysis on the capital projects under audit:

- i. A detailed exposition of the UM's current strategic framework; and
- ii. An evaluation of the degree to which the UM strategic framework adopts good governance principles.

2.2. The Strategic Plan 2020 - 2025 highlights the University's objectives through eight main themes, 61 main commitments and 290 action points

2.2.1. The 2020 strategy aims to serve students, scholarship and society in a sustainable manner. The vision of the University of Malta is to be among the leading institutions in higher education, contributing to the development of our region, our country and society in general.

2.2.2. Within the context of capital projects, the Strategic Plan 2020 – 2025 proposes a number of commitments. Table 2 refers.

Table 2: Strategic themes and core strategies relating to capital projects

Strategic Theme	Main commitment	Enabling strategy (i.e. measure)
Learning and Teaching	Develop physical environments which are conducive to learning	Increase investment in comfortable teaching spaces of high quality
		Create more independent study areas which encourage self-directed learning and collaborative learning
Sustainability	Develop sustainable land and buildings	Apply sustainability assessment tools in new construction and upgrading of buildings and infrastructure
		Integrate open spaces and shift parking areas to expand green reading and meeting spaces for students and staff
		Allow space usage flexibility in new buildings, extensions and refurbishment projects
		Follow green procurement and use of low impact materials
		Adopt design for deconstruction, reduction, reuse and recycling of construction, demolition and excavation waste, and the use of recycled materials in construction
Services and Administrative Support	Deliver physical infrastructure	Manage the rapid growth of capital infrastructure on campus
		Develop collaborative spaces for learning and research
		Design modular physical spaces that can be shared and adapted to the University's evolving needs
		Provide and implement guidelines for the provision of estates services
		Introduce automated systems for service requests, delivery and control
		Manage reactive and preventive maintenance across the campus
		Organise and update the roles and duties of facilities management
Mitigate the effects of construction projects on campus life		

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2.2.3. The UM further breaks down each of these actionable points, into a number of measures. Monitoring of the progress in addressing each of these measures falls within the responsibility of the Pro-Rector responsible for Strategic Enterprise, the Quality Assurance Team and the Internal Audit Team.

2.3. There are no cross references linking strategic measures to specific capital projects

2.3.1. Monitoring is key to ascertaining the successful implementation of the measures in the strategic framework. During recent years, the UM has strengthened its monitoring function through the implementation of various mechanisms. The UM created a three-tier set-up, whereby the strategy is monitored by:

- i. the Pro-Rector responsible for Strategic Planning and Enterprise.
- ii. the Internal Audit Office¹⁰ is responsible to assess the UM's internal system control to ensure that risks are mitigated, leading to the attainment of the long-term strategy.
- iii. a new Internal Quality Assurance unit is responsible to ascertain that academic standards are maintained and improved.¹¹

2.3.2. In addition, to the above monitoring framework, the University also established a Steering Committee on Infrastructural Projects in 2016. This committee is responsible to ensure that major infrastructural projects are planned, scheduled and controlled in such a way that deadlines are met with the minimum disruption possible.

2.3.3. While acknowledging the benefits of such a set-up, this Office notes the following:

- i. The Internal Audit Office function is in its early years. This implies that the areas covered, and follow-up action carried out to date are limited.
- ii. The monitoring of progress implementation carried out annually by the Pro-Rector for Strategy and Enterprise mainly considers qualitative variables. The state of affairs materialises since the strategic action points provide a very broad vision rather than being expressed in specific targets. Furthermore, projects being undertaken or in the pipeline are not formally linked to specific action points and measures. Consequently, monitoring is constrained to focus solely on the qualitative aspect of project outcomes.

¹⁰ <https://www.um.edu.mt/services/internalauditfunction/aboutus/> as at 17 January 2023.

¹¹ This unit work is beyond the scope of this audit.

2.4. The strategy was appropriately communicated to all stakeholders during its compilation and after its adoption

2.4.1. The Strategic Plan 2020 – 2025 was subject to a wide consultation process. During the academic year 2018-19, the entire University community of 15,000 students and staff, as well as its external stakeholders were invited to actively participate in the strategic planning process through strategy conferences, working groups, advisory committees and surveys. Moreover, the action points are all published online.

2.4.2. Communication and consultation with stakeholders resulted in acceptance of the strategic document. However, as the projects leading to the attainment of the objectives are not highlighted in the strategic document, stakeholders criticised the UM’s infrastructural projects following their completion. A case in point relates to the Campus Hub project, where various stakeholders including students and academics criticised different aspects of the project.¹² This situation materialised as stakeholders were not kept fully abreast of major developments and the project was not subject to an Environmental Impact Assessment that in itself triggers a public consultation process.¹³ It is to be noted that the University sought to mitigate this situation through various meetings with stakeholders, during project planning and when issues arose. Section 4.3 will discuss this matter in further detail.

2.5. Conclusion

2.5.1. The Strategic Plan 2020 - 2025 provides the UM with the guiding principles for a six-year period. This performance audit elicited a number of good practices relating to the compilation, implementation and monitoring of the Strategy. However, some limitations exist. While acknowledging that the principles portrayed in the Strategy and subsequently broken down in action points and measures tend to be broad, there is no cross-reference linking strategic measures to specific capital projects – particularly since any project commissioned by the UM would, most probably, address a number of these strategic principles. This situation, to varying degrees, limits the monitoring function to qualitative evaluations of project outputs and outcomes.

¹² <https://www.umasa.org.mt/en/press-release-details/campus-hub-project> as at 18 January 2023; <https://www.independent.com.mt/articles/2022-10-09/local-news/KSU-and-University-have-conflicting-views-on-Campus-Hub-6736246470> as at 18 January 2023.

¹³ <https://era.org.mt/era-topic-categories/eia-process/> as at 20 January 2023.

Chapter 3 | Sustainable Living Complex

3.1. Introduction

- 3.1.1 The Sustainable Living Complex (SLC) is located on the South-Western section of the ring road around the University of Malta (UM) and directly abutting Triq Dun Karm (Birkirkara Bypass). The site has a total owned footprint of 10,811 square metres and is currently in its construction phase.
- 3.1.2 As at the time of drafting this Report, this capital project had an estimated total cost of more than €48 million and, incorporates an extensive array of educational facilities, including research laboratories, design workshops and studios, academic and research staff offices, seminar and conference rooms, as well as lecture halls. Moreover, the building in itself was designed as a prototype resource-efficient and low carbon building that incorporates a variety of experimental and innovative construction techniques and materials.
- 3.1.3 As depicted in Figure 3, the SLC shall house various University Faculties and Institutes that would benefit by operating within a multi-disciplinary environment. These include the Faculty for the Built Environment and the Faculty of Education, as well as the Institute of Earth Systems, the Institute for Climate Change and Sustainable Development, and the Institute of Aerospace Technologies. In addition, the SLC shall also accommodate specialised equipment to be utilised for Research, Development, and Innovation (RDI) purposes such as the wave simulation tank and the seismic simulator.
- 3.1.4 The SLC shall also support other activities, such as the research work undertaken by the Institute of Sustainable Energy, not least by providing a real-life testbed for innovative energy equipment or other devices developed by the Institute. Other potentially beneficial uses of this project include the possible collaboration between public and private sectors, particularly with respect to resource-efficient buildings.
- 3.1.5 In view of the foregoing, as well as the overall objectives of this performance audit, this Chapter seeks to determine the extent to which the SLC project:
- i. reflects the UM's strategic objectives;
 - ii. is based on a sound business case with clearly established outcomes, budgets and Key Performance Indicators (KPIs);
 - iii. incorporates best-practice contractual clauses;
 - iv. outcomes shall be in line with the project objectives;
 - v. is being implemented within the established timeframes;
 - vi. cost reflects the prevailing market rates; and
 - vii. adopts sustainable practices both from a design as well as from a life cycle perspective.

Figure 3: Main components of the Sustainable Living Complex



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3.2. The SLC project reflects the University's strategic objectives

- 3.2.1. Despite not being directly mentioned in the UM's Strategic Plan for the period 2020-2025, as noted in Chapter 2 Section 2.3 of this Report, the SLC forms an integral part of the UM's Master Plan, aiming to enable its continued operation as well as a more sustainable growth. Through the realisation of the SLC project, the University is aiming to attain the following three main objectives:
- i. *Model resource-efficient building* that acts as a 'live laboratory' for monitoring a range of resource-efficient technologies in a real-life context, hence providing a basis for policy-making on sustainable development issues, create an infrastructure for indigenous innovation in the construction industry and provide a demonstration best-practice model.
 - ii. *State-of-the art research facilities* for smart specialisation areas, including resource-efficient building, aviation and aerospace technologies, and maritime studies.
 - iii. *High-quality environment for inter-disciplinary research*, thereby exploiting potential synergies between the different disciplines present and creating a unique research ecosystem of regional relevance.
- 3.2.2. Moreover, it is to be noted that these objectives are also in line with other national goals. The project addresses several themes identified in Malta's National Research and Innovation Strategy (NRIS) 2014-2020 as well as the National Research and Innovation Action Plan (NRIAP) 2015-2020, primarily in terms of resource-efficient buildings and capacity building for excellence in climate change adaptation.
- 3.2.3. In its assessment regarding the implementation status of the UM's Strategic Plan, as at end 2022, the University has opted to directly link the SLC project with some of the core and enabling strategies presented therein. To this end, all five instances relate to measures falling under Strategic Theme 2, that is, Research and Knowledge Transfer. However, further analysis by this Office shows that once completed the project has the potential to contribute to more of the Strategy's proposed implementation measures. Table 3 refers.
- 3.2.4. Table 3 shows that the SLC project will be contributing to at least 14 action points proposed in the UM's Strategic Plan 2020-2025. However, it is to be noted that the majority of these measures can be fully realisable once the project is completed, which date is expected to be during the third or fourth quarter of 2023. This implies that the implementation of such measures can be either partially or fully realisable near the completion of the strategy period. This phase is rendered more complex in view of the transition of faculties, institutes and departments from their current location to this building.

Table 3: SLC’s contribution to the relevant core and enabling strategies emanating from the UM’s Strategic Plan 2020-2025

Strategic Theme	Core Strategy	Enabling Strategy (i.e. measure)	SLC contribution
1. Learning and teaching	Develop physical environments conducive to learning	Increase investment in comfortable teaching spaces of high quality	Availability of facilities that address mobility issue and facilitate online learning/resources
		Create more independent study areas which encourage self-directed learning and collaborative learning	SLC includes facilities such as labs that are the haven for collaborative learning
	Improve and modernise the doctoral programmes	Identify areas of research which have an impact on society, industry and the nation	The building of the SLC is in itself innovative. The project provides equipment and laboratories which provide space for innovative research in various sectors
2. Research and knowledge transfer	Promote world-class research with local, regional and global significance	Attract and retain high-level researchers	This Project provides space for innovative research in various sectors, through laboratories and specialised equipment for testing purposes
		Invest in the best possible environment for researchers	State of the art research facilities
		Develop the functions of the Doctoral School	New offices to accommodate the Doctoral School
	Conduct research and knowledge transfer that supports the rankings	Improve the doctoral-researcher-to-staff ratio	Specific funds for the employment of postdoctoral researchers
	Secure sustainable funding for R&D	Procure and update infrastructure including laboratories and office space	Several European Regional Development Fund (ERDF) funding programmes were and are still being used to establish and update such infrastructures
	Apply the clusters concept to stimulate well-funded, sustainable research	Support efforts for funding from national and international sources	ERDF funding

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7. Sustainability	Develop sustainable land and buildings	Adopt design for deconstruction, reduction, reuse and recycling of construction, demolition and excavation waste, and the use of recycled materials in construction	One of the Project objectives was to ascertain whether it was viable to adopt a different mode of creating underground space, by cutting blocks instead of breaking up the rock to create excavation waste, and then using the blocks in-situ, as much as possible, to avoid transport costs, etc. However, this objective did not materialise in view of the abandonment of the site by the first excavation contractor
	Extend energy efficient measures	Pursue energy efficiency in air-condition systems	Installation of different air-conditioning systems managed through a Building Management System (BMS)
		Promote active and passive measures for the reduction of energy consumption	Due to its composition of its structure and the M&Es installed it promotes the reduction of energy consumption
Conserve water and reduce consumption	Improve water catchment and storage with large reservoirs in new buildings	The total volumetric capacity of reservoirs in the project amount to 1,356.80 cubic meters	
8. Services and Administrative Support	Deliver physical infrastructure	Develop collaborative spaces for learning and research	The University has been investing in additional learning and self-study areas, laboratories, incubation areas, and meeting spaces

3.3. The SLC business case highlights the project outcomes, budgets and KPIs

3.3.1. Generally accepted principles dictate that project owners develop a sound business case to evaluate project feasibility in terms of financial and social sustainability. To this end, the University had requested Ernst & Young Ltd (EY) to carry out a detailed Cost Benefit Analysis (CBA) for the SLC project, in conjunction with the application for European Union (EU) funding under the ERDF 2014-2020 programming period. The CBA was intended to assess whether this project was desirable from a financial and economic point of view, and to verify whether it fits within the wider national goals as noted in paragraph 3.2.2. Furthermore, the CBA also aims to present the EU contribution required for the project to be realised. The UM received the first version of the CBA from EY in September 2017. Table 4 presents the various options that were considered in this CBA, as well as the preferred option.

Table 4: SLC CBA Options Analysis

Options	Description	Conclusion
Option 1 (Business as usual)	Retention of the current facilities	Unfeasible as it reflects present scenario where facilities available are not in line with policy requirements and Government’s vision for RDI
Option 2 (Do something)	Upgrading of the current facilities	Not technically feasible mainly due to cost implications in connection with the relocation of current operations and, it would not be possible to meet all green principles
Option 3A (Do maximum – on campus)	Development of a custom-built prototype building, which incorporates the planned green principles, within the campus precinct	Least costly option that would enable it to meet the UM’s as well as Government’s objectives
Option 3B (Do maximum – off campus)	Development of a custom-built prototype building, which incorporates the planned green principle, outside the campus precinct	Costlier option that may not necessarily provide additional benefits, with synergy efforts forgone due to the relevant faculties not being on-campus

3.3.2. Based on the assumptions provided by the University, the SLC project (Option 3A in Table 4) had a negative Financial Net Present Value (FNPV) of -€55.9 million, indicating that the project will be incurring significant capital and operational expenditure that are not being offset by any additional revenues. Thus, the project required co-financing assistance to be implemented, as it was still desirable given Government’s vision regarding RDI. The preferred option resulted in a positive Economic Net Present Value (ENPV) of €104.7 million, indicating that the new Complex will lead to improvements in social welfare. Moreover, the Project produced a Benefit/Cost Ratio of 3.03 which is higher than 1, indicating that this project was also desirable from a socio-economic point of view.

3.3.3. The co-financing rate, which is based on the suggested funding gap method and the maximum ceiling for operational projects falling under the ERDF programme, should be set at 80 per cent of eligible project cost. The total estimated project cost amounts to €47.9 million and, the EU grant is capped at €30 million, which effectively represents a rate of 62.68 per cent. The remaining non-EU funded eligible costs shall be financed directly by Government, who would also meet the operating costs of the project and any replacement expenditure required.

3.3.4. In August 2018, the Project Selection Committee (PSC) awarded a positive rating to this project but, requested additional information and imposed several conditions to the grant of €30 million. It is to be noted that during the conduct of this performance audit the National Audit Office (NAO) has carried out the necessary checks with the Planning and Priorities Coordination

Division (PPCD) within the Parliamentary Secretariat for European Funds under the Ministry for the Economy, European Funds and Lands, to verify that all issues that were raised at the time, had been addressed, including state aid related concerns.

3.3.5. Consequently, a Grant Agreement was signed between PPCD and the UM on 10 January 2020. This Agreement lays out the terms and conditions to be followed by the UM for implementing this project. It is to be noted that all the expected details including the financial aspects, the implementation schedule and the respective disbursement, the output and result indicators, as well as the respective targets and deadlines, were also set, as noted in the next section of this Chapter.

3.3.6. In March 2021, EY presented an updated version of the CBA as requested by the PSC. The updated version was mainly intended to consider the feedback received from the Managing Authority and Joint Assistance to Support Projects in European Regions (JASPERS), as well as to include updated financial data.

3.4. The SLC's main contracts generally included the relevant best-practice clauses

3.4.1. The aim of contractual provisions is to define parties' responsibilities as well as safeguarding signatories' interests. Within this context, contractual clauses are deemed critical to the realisation of project objectives, including those related to deliverables and value for money. The SLC project was regulated by various agreements between the parties involved. These related to the grant agreement regulating the funding arrangements between the UM and PPCD, as well as a number of contracts between the UM and third parties for the building of the project. On the basis of the materiality involved vis-à-vis the total Project cost, the NAO has opted to focus on the following contracts:

- i. C&F Building Contractors Ltd (CT 3222/2018) including Corrigendum and Addenda. This contract related to the "Design and build of the Sustainable Living Complex buildings' substructure and superstructure including the respective surrounding landscaping infrastructure, part finishes and part mechanical and electrical works in environmentally friendly materials at the University of Malta". The total contract costs amounted to €14,786,959.49 excluding VAT as at the time of drafting this Report.
- ii. Central Power Installations Ltd (CT 3016/2020) relating to the "Design and installation of mechanical and electrical services and finishing works, partially using environmentally friendly materials at the Sustainable Living Complex building, University of Malta". The total contract costs amounted to €17,959,121.44 excluding VAT.

3.4.2. The aforementioned two contracts were reviewed against best-practice contractual clauses. The latter criteria were derived from generally accepted practices and literature on the subject matter. The analysis was carried out by using a traffic lights system, whereby:

- i. green means that the contractual provision is included in the agreement under review;

- ii. orange means that the clause is included in the agreement but there is room for improvement; and
- iii. red relates to contractual provisions not included in the agreements under review.

Table 5: SLC analysis of common contract provisions and best practice contractual clauses

Common Contract Provisions	C&F Building Contractors Ltd (CT 3222/2018)	Central Power Installations Ltd (CT 3016/2020)
Access and disclosure	Green	Green
Assistance provided to the Contractor	Green	Green
Confidential information	Green	Green
Conflict of interest	Green	Green
Contract variations	Green	Green
Disclosure of information (confidentiality)	Green	Green
Dispute resolution	Green	Green
Insurance	Green	Green
Intellectual property rights	Green	Green
Key personnel	Green	Green
Liabilities and indemnities	Orange	Orange
Payments	Green	Orange
Penalties and incentives	Orange	Orange
Securities and guarantees	Orange	Orange
Sub-contracting	Green	Green
Termination and contract end-dates	Green	Green
Transition Agreements	N/A	N/A
Warranties and fitness for purpose	Green	Green

3.4.3. Table 5 shows that the contracts relating to the Design and Build as well as the M&E and Finishes, generally include the common contract provisions and best-practice clauses. However, the following issues emerge:

- i. *Securities and Guarantees*: The SLC contracts aim to secure the attainment of contract deliverables, in part, through the provision of a performance guarantee. This is regulated by the Public Procurement Regulations¹⁴ as well as the related Policy Note¹⁵ issued by the Department of Contracts (DoC), and currently stands at 10 per cent of the contract value in case this exceeds €500,000 excluding VAT. However, the UM remarked that the 10 per cent threshold is not sufficiently high to act as an effective deterrent to defaulting parties, such as in the case of the excavation contractor that abandoned the SLC site.

¹⁴ Subsidiary Legislation 601.03, Public Procurement Regulations, Legal Notice 352 of 2016, as amended by Legal Notices 155 of 2017, 233 of 2017, 26 of 2018, 176 of 2018, 263 of 2018 and 195 and 301 of 2019 and 196, 413 and 446 of 2020, 56 of 2021 26 and 360 of 2022; Act XXVIII of 2018 and XXI of 2020.

¹⁵ Procurement Policy Note #21, Department of Contracts, dated 30 November 2015 and reviewed on 28 September 2018.

- ii. *Penalties and incentives:* Similar to the above, the penalties are regulated by the Public Procurement Regulations. Moreover, the General Conditions for Works Contracts¹⁶ as issued by the Department of Contracts and included in the SLC contracts, establishes the provision for the imposition of such penalties in case of delays. Additionally, the Special Conditions that were specifically drawn up for the management of the SLC contracts, establish the amount per specific incident and the limit percentage of the contract value. In this case, penalties for delays in commencing works were set at €1,200 per day inclusive of Sundays and Public Holidays. On the other hand, penalties for delays beyond the deadline set for the completion of works were set at €1,500 per day, capped at 10 per cent of the awarded contract value. In case this mechanism is exhausted, the contract provides for the seizure of the Performance Guarantee, termination of the contract and the possibility to enter another contract with a third party at the Contractor's expense for the provision of the remaining works. These penalties were drawn up by the Contracting Authority, that is by the UM, taking into consideration the estimated contract value and other factors related to these contracts. Nonetheless, the UM contends that making use of such possibilities will inadvertently influence project completion as delays, such as those resulting from the issuance of new tenders, will be severe. In addition to these penalty mechanisms, the analysis of the SLC contracts also revealed the lack of direct incentives to encourage higher standards of performance.

3.5. When fully realised, the project’s outcomes will be in line with the project objectives

3.5.1. Since the SLC is currently in its construction phase, the NAO was not able to conclusively assess some of the Project’s outputs and outcomes. This limitation was somewhat mitigated through the NAO’s engaged consultants who assessed the extent to which the project was on track to realise its predetermined objectives.

3.5.2. The Grant Agreement has identified a total of four output and result/outcome indicators that are presented in Table 6, including the respective baseline and targets.

Table 6: SLC outputs and outcomes

Indicator Type	Indicator Description	Baseline ¹⁷ (Interim 2018)	Target	Deadline
Output	Number of research facilities	0	1	September 2022 (The UM presently estimates December 2023)
Output	Number of researchers working in improved research facilities	40	90	2024
Output	Number of faculties and institutes shifting to new facilities	0	6	2024
Outcome	Number of applications for patents	N/A	12	2028 (within 5 years of completion of the project)
Outcome	Number of partnerships or cooperations with enterprises and other research institutions	N/A	30	2028 (within 5 years of completion of the project)

¹⁶ General Conditions for Work Contracts V4.0, Department of Contracts, dated December 2019.

¹⁷ Cohesion Policy 2014 – 2020 Operational Programme I, ERDF Grant Agreement, Project Title: Sustainable Living Complex, p. 24 – 25.

3.5.3. Whilst adopting the Programme Logic Model (PLM) approach for the SLC project, as presented in the Key Facts section of this Report, the NAO identified another possible Output Indicator that is also presented in Table 6. This indicator relates to the number of faculties and institutes that will eventually shift to new and more efficient facilities, which is expected to be attained once the SLC has been completed.

3.5.4. Additionally, the NAO has also identified other outcomes that are expected to be achieved once the SLC is operational. These outcomes relate to the main impacts that are expected to be attained because of the SLC Project, namely:

- i. Tried and tested resource-efficient technologies for improved infrastructure.
- ii. Construction industry adopting more sustainable practices.
- iii. Increase in the stock of sustainable buildings.

3.5.5. These outcomes and impacts are in line with the UM's objectives for this Project as noted in paragraph 3.2.1. Nonetheless, these potential KPIs as well as the respective targets were not established for this specific project.

3.5.6. Although at the time of drafting this Report the SLC was still in its construction phase with ongoing structural as well as Mechanical and Electrical (M&E) works, through the architectural and structural designs as well as the measures proposed therein, the main Project objectives as presented in paragraph 3.2.1 look set to be attained. The SLC is not only expected to provide additional teaching and research facilities, but would also represent a national first in terms of a prototype environmentally friendly live laboratory that would make it possible to:

- i. carry out real time monitoring of energy generation and consumption, as well as of air quality, comfort, and indoor environments.
- ii. identify cost-efficient systems for sustainable living, to inform public policy and to help achieve environmental sustainability targets.
- iii. act as a live classroom for students of the built environment and future educators, to teach how to use such resource-efficient buildings.
- iv. demonstration building for the public and building industry actors.
- v. contribute to the modernisation of the local building industry, which will have a significant effect on sustainability targets and environmental quality in general.¹⁸

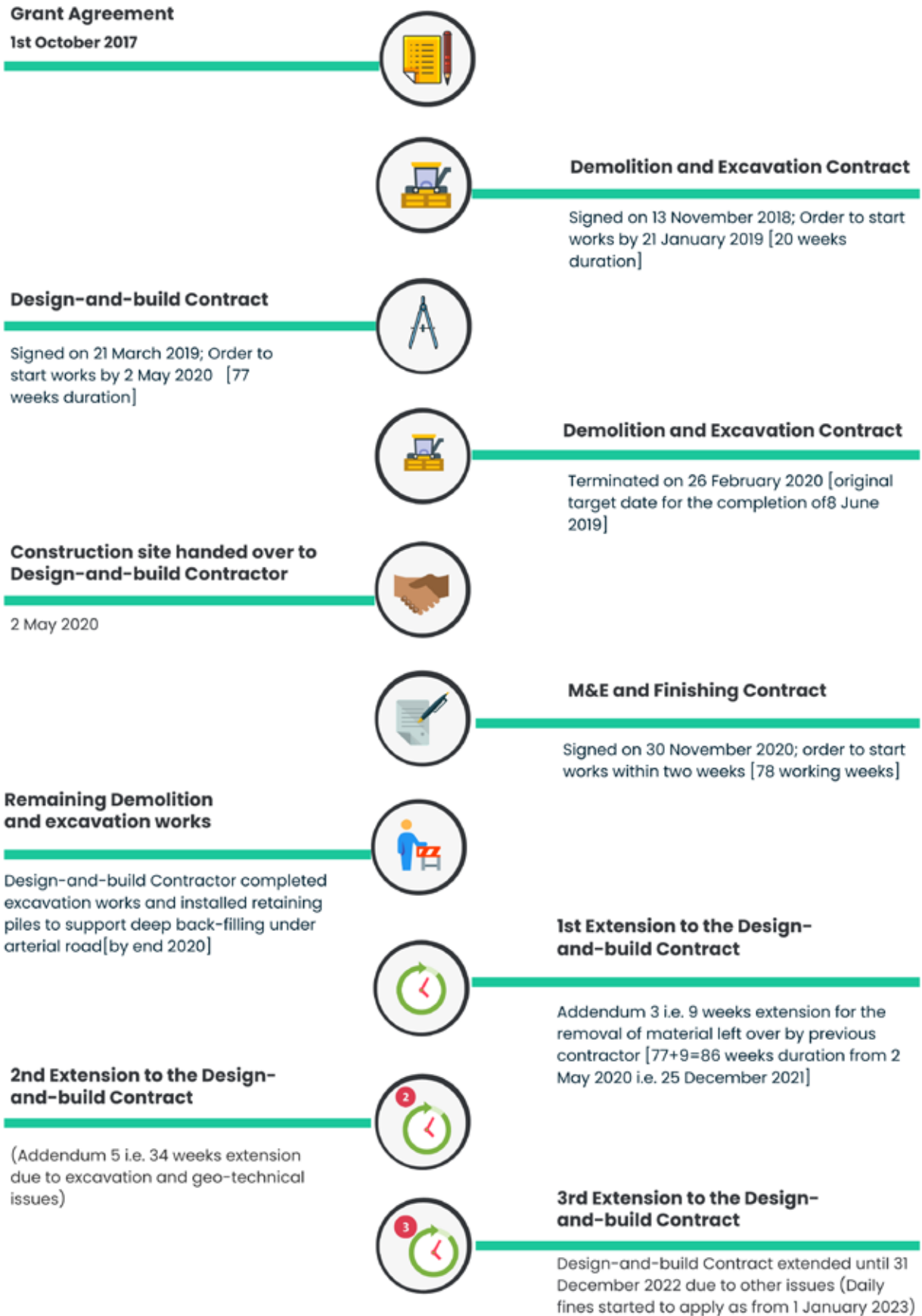
3.5.7. However, this audit has revealed that some relatively minor aspects of this Project have been discarded. These mainly relate to the non-utilisation of in-situ limestone blocks and cladding, for structural and finishing purposes respectively. Such variations are mainly attributable to time and financial limitations, as shall be further discussed in Sections 3.6 and 3.7 of this Chapter.

¹⁸ EY, 2021. University of Malta, Cost-Benefit Analysis, Sustainable Living Complex, p. 12.

3.6. Works are at least one year behind schedule for various reasons

- 3.6.1. The SLC Project was originally intended to be completed by end 2018, together with the Campus Hub. However, in view of the considerable size of this Project, its innovative concept as a ‘live laboratory’, the workload involved in the design and processing of an extensive number of tenders, as well as for EU funding related matters, the target completion date as set by the UM in the ERDF Grant Agreement was September 2022. Figure 4 refers.
- 3.6.2. As shown in Figure 4, the Demolition and Excavation Contract (CT 3125/2018) was signed in November 2018 with an order to start works by 21 January 2019. Such works were supposed to be completed within 20 weeks, that is, by mid-June 2019. However, the Contractor in case ended up abandoning the site in October 2019, with the respective contract being officially terminated on 26 February 2020, resulting in a delay of around 12 months. Such drastic action from the Contractor’s end was mainly attributable to the significant increase in dumping fees that increased from €8 to €15 per tonne in 2019, as well as the Contractor’s requests to revise the relevant rates that were turned down by the Department of Contracts (DoC) in accordance with the Public Procurement Regulations (PPR) Subsidiary Legislation 601.03.
- 3.6.3. This default required the Design and Build Contractor responsible for construction to take over the remaining excavation and removal of excavated material that was left on-site by the former Contractor responsible for the initial demolition and excavation works. As a result, the Design and Build Contract was extended by nine weeks, as shown in Figure 4. Additionally, the failure of the Demolition and Excavation Contractor to extract the stone blocks that were envisaged to be used in the Project, as discussed further in Section 3.9 of this Chapter, required a change in design mainly to avoid additional delays that could have been detrimental for this Project. However, this resulted in the Design and Build Contractor claiming a variation of €401,477 that has not yet been approved by the UM.
- 3.6.4. In line with Article 8.4 of the General Conditions of the Fédération Internationale des Ingénieurs Conseils (FIDIC) Yellow Book 1st Edition 1999 Plant Design and Build governing the contract, the UM granted a second extension of almost eight months to the execution period of the Design and Build Contract, until 20 August 2022. PPCD approved these arrangements and consequently there were no risks to the loss of EU funds.
- 3.6.5. The UM stated that this extension was granted for various reasons, mostly resulting in a justifiable cause for delay. To this end, it was not possible to quantify the impact of all the different issues in terms of the resulting delay, as a piece of additional work does not necessarily imply additional time since it depends on where the specific activity is with reference to the critical path of the Programme of Works, as contended by the UM. Nevertheless, it is to be noted that this extension was granted with the proviso that building would be completed in stages so that the subsequent works of services and finishing could start in parallel to the construction phase.

Figure 4: SLC’s development timeline



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3.6.6. Issues that resulted in a justifiable cause for delay during the construction phase of this Project namely relate to the following:

i. *Triq Dun Karm*

During the excavation works under tender CT 3125/2018, it was realised that the adjacent Regional Road was built on backfill that had been dumped into an existing quarry that partially extended into the University site. The presence of the quarry was known, but the UM never expected that no retaining structures had been installed between the two sites. In view of the urgency for a retaining structure to avoid a potential collapse of the road, these works were approved as a variation under the Civil Works Contract CT 3222/2018.

ii. *EneMalta tunnel*

The EneMalta tunnel supplying power to Mater Dei Hospital, passing underneath the SLC Project, was wider than what was indicated on the drawings supplied to the UM at critical locations of the foundations. This resulted in additional piling and substructure works.

iii. *Fissures*

A fissure was uncovered in the rock adjacent to the Institute of Agriculture, which required demolition of part of the Institute, and additional rock stabilisation works. Furthermore, another difficult fissure was uncovered during the excavation of the pit for the flight simulator, which threatened the stability of columns already cast in the vicinity of the pit, that required complex remedial action including the demolition and rebuilding of one column. The UM stated that despite the geotechnical investigation that was carried out prior to the compilation of the tender, such an assessment cannot reveal the presence of fractures that can affect the stability of the excavation.

iv. *Archaeological cart-ruts*

The discovery of cart ruts, and the obligatory manual site clearance as requested by the Superintendence of Cultural Heritage (SCH), resulted in a delay of approximately 41 days as contended by the UM.

v. *Moratorium on excavation and demolition works*

The UM noted that the moratorium imposed on excavation and demolition works in 2019, following several construction-site collapses, also influenced the ongoing works at the SLC. The University has estimated that such situation resulted in a delay of around 84 days.

vi. *Lack of building materials*

The University contended that COVID-19, and more recently the impact of the war in Ukraine, affected the delivery of building materials, particularly steel.

3.6.7. On the other hand, the UM was also concerned with the Civil Works Contractor's mismanagement and lack of allocation of resources on-site. The UM tried to mitigate the delays in the earlier phases of the project by requiring the Civil Works Contractor, and the Finishes and Services Contractor to merge their respective Programme of Works since they formed part of the same group of companies aiming to complete the Project in time. Even so, in view of these concerns, such an approach was not sufficient

and consequently the latest request to extend the deadline beyond 31 December 2022 was not considered justifiable and was not accepted. The UM stated that the Civil Works Contractor is currently in default and will be charged daily penalties for the delay at the rate of €1,500 as from 1 January 2023.

3.6.8. Although the UM informed PPCD that the SLC Project should be completed by September 2023, such a target appears to be relatively optimistic in view of the status of works. It is to be noted that the original Construction Management Plan had an initial time frame of four years, from the commencement of works to completion including furniture and loose equipment. A five-year period would have been considered more realistic to allow for any time risk factors on site. At this stage of this project, it is critical for the UM to dove-tail the different sections of the Project through sound project management as otherwise the SLC could end up being completed beyond the current deadline, more likely towards June 2025. Such delay could not only have an impact on the University Faculties and Institutes that will be relocating to the SLC premises as well as the other benefits that are expected to be reaped from this Project but will most likely have an impact on the costs and risks complicating the EU funding arrangements.

3.7. The cost of the SLC project generally reflects prevailing market rates

3.7.1. A key element to determine the degree to which the SLC project reflects value for money is to benchmark the project costs with the current market rates. The project was also subject to cost variations due to external factors influencing the construction industry.

3.7.2. This Office carried out this evaluation by analysing the four key components of the project, namely excavation, construction, Mechanical and Electrical (M&Es) and finishes. These four key components constitute 84 per cent of the total estimated project costs. Also the works related to the facade were considered as a separate line item from the finishes to be able to determine the cost of the materials used.

3.7.3. For the purpose of this exercise, the NAO engaged the professional services of a consultant to verify the cost incurred at every stage. The estimates consider 2018 as the base rate and then are topped up to 2019 rates to be comparable to the UM costs as awarded through various tenders in the same year. Table 7 refers.

Table 7: Comparison of the SLC Project costs against market rates

Works	2019 Rate		Total 2019 estimated costs (€ excl VAT)	
	Market rates	UM contracts	Market rates	UM contracts
Excavation	€35/ cubic meter (cum)	€34/cum ¹⁹	1,519,315	1,488,523
Construction	€492/sqm	€517/sqm	14,083,595	14,786,959
M&E	€350/sqm	€362/sqm	11,355,454	11,759,573
Finishes	€164/sqm	€120/sqm	5,306,188	3,904,799
Facade	€205/sqm	€165/sqm	2,240,240	1,807,025
Total	/	/	34,504,792	33,746,879

¹⁹ This rate relates to the second tender awarded to C&F.

3.7.4. Table 7 compares the market rates with the awarded tenders. It is to be noted that the 2019 market rates resulted in an estimated expenditure of €34.5 million which is 2 per cent higher than the contracts awarded by tender. However, when analysing each of the four components, a number of issues emerge. The following refers:

- i. **Excavation Costs** - The SLC required excavation in view that the project has two underground levels measuring 1,608.47 sqm and 7,896.27 sqm respectively. The original excavation rate used was that of €25/cum. Due to external issues, the contractor abandoned the site, and a second agreement was awarded to the contractor responsible for the construction of the project. However, the second tender awarded for excavation considered a rate of €34/cum. This rate reflects the upward trend in dumping fees where these rates increased from €15/cum to €22/cum in February 2019 and then further increased to €27.50/cum later in the year. Thus, the rate of €35/cum reflects the market price changes that occurred during 2019.
- ii. **Construction** - For the purpose of this analysis, this Office considered as its base rate the 2018 construction rate of €365/sqm. This rate was revised to €492/sqm to reflect the design of the project and the 2019 rates. This rate compares favourably with the tendered bidders' rate at €517/sqm as the former rate is five per cent lower than that of the Contractor awarded the construction of the project. At the time of writing this Report, construction was still ongoing, and there is the possibility of additional cost variations.
- iii. **M&E** - To derive the estimated rate relating to M&E costs, this analysis considered each specific use within the building. Using the 2018 figure, the estimated rate amounted to €246/sqm which increases further to €350/sqm in 2019. Similar to the structures estimated rate, this rate compares favourably with the tendered bidders' rate of €362/sqm.
- iv. **Finishes** - The 2018 rate for finishes²⁰ is estimated at €139/sqm which increases to €164/sqm in 2019. This 2019 rate is noted as being higher when compared to the awarded contract rate of €120/sqm. This state of affairs materialises as in the submitted tender the finishes are predominantly standard finishes consisting of amongst others basic plastering, tiling and soffit works, and these were secured at favourable prices. When the requirements as set out in the mentioned report are compared to items quoted for in the Bill of Quantities (BoQs) certain specifications would fall short from the acoustic performance required. This is mostly noticeable in the flooring elements quoted. Some acoustic properties were noted in the ceiling finishes. However these areas are small when compared to the overall usable space.

²⁰ This rate does not include the finishes relating to the facade.

It is however to be noted that finishing works is still to commence and there can be the possibility of variations due to technical specifications and additional finishes required in view of changes in the structure of the SLC. This situation materialises as the finishes contract was awarded when the construction phase was still ongoing.

The cost of the facade was analysed on its own merit to derive separately the rates of the materials to be used. For the facade, the finishing rate is worked out at €179/sqm in 2018 which is then increased further to €205/sqm in 2019. This 2019 rate is noted as being higher than the tendered bidders' rate at €165/sqm. However, this Office has concerns regarding some of the rates submitted as part of the bid. These relate to the following:

- The perforated screen is priced at the rate of €41/sqm, which is noted to be low for the required finish and material.
- External plastering is priced at the rate of €21/sqm, which is noted to be a good rate, however sections of the building are to be insulated by expanded polystyrene (EPS)/extruded polystyrene (XPS) boards. This rate was not identified within the finishes BOQs. In such areas the rate would be expected to double.

The above two transactions constitute five per cent of the total costs related to this line item. Moreover, in view of the changes in the facade design, it is expected that the costs relating to this line item from this EU funded project decrease. This situation materialises as the UM will be seeking alternative funding to carry out research relating to two different possible types of facade finishes. These relate to green walls to insulate the south-facing facade and mitigate noise and particulate matter coming from B'Kara Bypass and reconstituted stone used as cladding.

3.8. From a design perspective, the SLC has generally embraced the principles of sustainability

3.8.1. The NAO has carried out an analysis of the extent to which the SLC's design embraces the principles of sustainability, in line with the green principles highlighted in the CBA.²¹ Table 8 presents the salient observations with respect to each objective:

²¹ EY, 2021. University of Malta, Cost-Benefit Analysis, Sustainable Living Complex, p. 81.

Table 8: Observations regarding the sustainability elements in the SLC’s design

Objective	NAO Observation
1. Green procurement process and life cycle assessment	Standard procurement process and technical specifications. Not envisaged that the building materials to be utilised will include a cradle-to-cradle product certification and consequently will not reflect positively on its Leadership in Energy and Environmental Design (LEED) certification.
2. Efficiency in excavation technologies and recycling of building materials and building waste	<p>Excavated material has not been used within the Project. Stone blocks were not extracted as originally planned to be utilised both for structural purposes as well as for cladding the perimeter load bearing walls.</p> <p>The UM noted that the Extraction of the stone blocks did not materialise due to a defaulting contractor and the subsequent delays. However, this resulted in an opportunity to test both green walls as well as reconstituted stone cladding through separate funding sources.</p>
3. Energy performance of the building fabric	This objective seems to be achievable, with several elements being proposed to cater for the varying orientations.
4. Renewable and efficient energy generation and distribution systems	M&E’s presented within the tender indicate that this objective will be met, not only through the utilisation of PVs but also by incorporating geothermal heating and chillers for internal climate control.
5. Smart building	Building Management System (BMS) shall incorporate a set of smart system of data collection from sensors spread across the different services to make the buildings more efficient in terms of energy use.
6. Lighting and acoustic issues	Whilst lighting seems to be addressed through the combination of contemporary light fitting requirements, the inclusion of the northern lights system as well as the advanced BMS, the Finishes BoQ does not seem to incorporate additional measures to obtain a better acoustic performance.
7. Ventilation and air-quality issues	This objective should be achieved as the BMS aids in the control of the internal environment. Moreover, the proposed design solutions to create large outdoor areas and the inclusion of landscaping push towards a better air-quality.
8. Water resources and management	<p>Water reuse systems such as grey water and black water treatment are not incorporated in the current design and, there seems to be a shortfall in the volumetric capacity of the reservoir provided.</p> <p>The UM stated that the system was designed to accommodate the later installation of a grey water treatment system for budget reasons.</p>
9. Landscape and green infrastructure	<p>Insufficient details were available at this stage of the Project to allow a more detailed assessment although landscaped areas are visible in the documentation submitted.</p> <p>The UM plans to make use of green walls to improve building insulation, mitigate the impact of storm water and enhance biodiversity within urban contexts.</p>

3.8.2. Table 8 shows that, from a design perspective, the SLC is expected to attain most of the sustainability related targets that were set for this Project. These include aspects related to the energy performance of the building fabric, as well as, the renewable and efficient energy generation and distribution, as managed through the smart Building Management System.

3.8.3. However, this analysis has revealed that certain sustainability aspects, particularly those related to the green procurement as well as the recycling of building materials and waste, were not fully addressed. For instance, the building materials utilised do not seem to include a cradle-to-cradle product certification and consequently will not reflect positively on a potential LEED certification. Similarly, as already noted in Table 4, the originally planned in-situ stone extraction to be utilised for the substructure as well as for cladding purposes, did not materialise for financial, technical and time constraints. The ensuing section of this Chapter shall delve deeper into the sustainability aspects at every stage of the life cycle of this Project.

3.9. From a life cycle perspective, various sustainability related aspects were not fully considered

3.9.1. For the purpose of this performance audit, the NAO has attempted to utilise a *Sustainability Checklist*, to assess the level of sustainability in the practices adopted by the UM during the entire life cycle of the SLC project. This Checklist offers very valid project sustainability criteria against which to assess infrastructural developments, including the SLC.

3.9.2. The Sustainability Checklist is intended to serve as an early and comprehensive self-assessment tool, to be utilised during the various phases of activity to ensure the sustainability of the procured infrastructure, including by public buyers. In view of the extended lifetime of infrastructure projects, the Sustainability Checklist aims at supporting an analysis of infrastructure across the entire life cycle, which is composed of the following six phases of activity:

- i. Preparation for tendering;
- ii. Tendering;
- iii. Construction;
- iv. Use;
- v. Maintenance and operation; and
- vi. End-of-life.

3.9.3. This Checklist presents the different aspects that should be considered at each of these six phases, that are supplemented with various questions intended to aid public procurers in ensuring that sustainability is considered at all stages in the procurement of sustainable infrastructure.

3.9.4. Since this self-assessment tool was only presented to the UM by the NAO in 2022, such checklist was not utilised as originally intended from the pre-tendering stage. Nevertheless, the UM has attempted to complete such Checklist for the purpose of this performance audit, to enable an assessment of the sustainability aspects that have or shall be duly taken into consideration

during the various stages of the life cycle of these projects. Table 9 below presents the results of such an assessment with regard to the SLC project.

Table 9: Sustainability Checklist analysis vis-à-vis the SLC project

Stage (phases of activity)	Sustainability aspects taken into consideration by the UM		Sustainability aspects Not taken into consideration by the UM		Sustainability aspects Not directly applicable to this capital project		Total sustainability aspects	
	(No.)	(%)	(No.)	(%)	(No.)	(%)	(No.)	(%)
Preparation for tendering	12	54.5	9	40.9	1	4.5	22	100
Tendering	5	16.7	21	70	4	13.3	30	100
Construction	2	14.3	3	21.4	9	64.3	14	100
Use	0	0	1	16.7	5	83.3	6	100
Maintenance and Operation	0	0	4	57.1	3	42.9	7	100
End-of-Life	0	0	4	100	0	0	4	100
TOTAL	19	22.9	42	50.6	22	26.5	83	100

3.9.5. In view of the scope of this self-assessment tool, which is also intended for public buyers to keep sustainability in mind throughout the entire life cycle of capital projects, the implementation related classification for every sustainability aspect in this Checklist, was selected by the UM. Additionally, it is to be noted that verification of the replies provided to the NAO was relatively limited since such information was only made available towards the concluding stage of this audit. Nonetheless, the findings that emerged from such an assessment as presented hereunder.

i. Preparation for tendering:

- The likely direct environmental impacts of the project over its lifecycle have not been identified and estimated in terms of environmental pollution, Greenhouse Gas Emissions (GHG) emissions and biodiversity. The UM stated that the time-frames available between publication of the Grant Programme and the submission dates, did not allow such impacts to be evaluated prior to the tendering process. Nevertheless, the impacts shall be assessed as part of the research agenda of the project as contended by the UM.
- Similarly, the likely direct lifecycle economic impacts of the project have not been identified and estimated at the pre-tendering stage. The UM stated that whilst the research impact has been identified, it is difficult to relate research output to business, job creation and Gross Value Added (GVA).

ii. Tendering:

- With respect to the development of technical specifications at tendering stage, the specifications put forward by the UM do not ensure that bidders will meet environmental

and social regulatory requirements, including the Do No Significant Harm (DNSH) principle introduced by the EU Taxonomy.²² Likewise, the tenders issued under this capital project did not require the verification of whether the main bidder sought the relevant guarantees from subcontractors that they will also comply with the environmental and socially relevant obligations.

- Regarding the evaluation of bids and the respective award criteria, it is to be noted that the weight of the award criteria rewarding sustainability aspects, do not concretely influence the award of the contract, as opposed to price related criteria. Moreover, SLC tenders did not include award criteria that provide further incentives for bidders to make a more advantageous offer on the sustainability requirements included in the technical specifications. The UM contends that it has followed the procurement routes and procedures prescribed by legislation, including the design of the tenders themselves. Additionally, the UM stated that possibly the SLC project was too complex to consider all the aspects covered by the Sustainability Checklist for all tenders related to this project, including civil works, services, finishes, equipment and furniture.

- The contracts governing the development of this capital project, do not include any clauses and conditions on the guaranteed performance parameters to be delivered by the contractors in relation to the environmental and social aspects including:
 - instructions for remedy and resolution within specific deadlines;
 - contractual penalties in case of performance deviations;
 - conditions on environmental aspects of implementation including environmental due diligence in the supply chain, reduction of emissions during transport and, minimisation of waste during the lifetime of the project; and
 - conditions on social aspects of implementation including worker's rights as well as ensuring equal opportunities.

iii. Construction:

- With regard to the construction phase of this project, works are still ongoing and are more likely to be concluded by end of this year. One of the sustainability aspects presented in the Sustainability Checklist relates to the need to set up a monitoring system for the construction phase of the project. To this end, whilst the UM allocated a full-time supervising architect to monitor the development of the SLC project, such monitoring is not guided by specific environmental criteria and, does not incorporate an appropriate environment management system to manage the environmental sustainability of the construction phase.

²² The EU Taxonomy is primarily a classification system establishing a list of environmentally sustainable economic activities. An activity must (i) Contribute to at least one of six environmental objectives listed in the Taxonomy (i.e. climate change mitigation; climate change adaptation; sustainable use and protection of water and marine resources; transition to a circular economy; pollution prevention and control; protection and restoration of biodiversity and ecosystems); and (ii) Do no significant harm to any of the other objectives, while respecting basic human rights and labour standards.

- In addition to the environmental aspects of the contracts, such system should also cater for the monitoring of the relevant social as well as health and safety related aspects. The UM contends that despite the availability of qualified staff responsible for the monitoring of this development, they are not empowered to incorporate environmental and social considerations. Consequently, the UM has not included any KPIs and enforcement provisions in the contracts to ensure that the agreed environmental and social performance of the infrastructure is achieved during the construction phase, thereby ensuring an adequate level of accountability.
- iv. *Use:*
- An analysis of the sustainability related aspects vis-à-vis the Use phase of the SLC Project as presented in the Sustainability Checklist revealed that, most of these aspects are not applicable in view of the experimental nature of this capital project. The SLC is a research facility in itself, that is, it is not only intended to accommodate different research related equipment and supporting facilities but is also intended to test different building performance setups. These include varying finishes based on the orientation of the building and attempts to maximise its context, as well as different structural design solutions that created large circulation areas and outdoor landscaped areas between the buildings which provide a positive outlook to the project. To this end, the UM noted that monitoring of the use of the building as well as the respective evaluation as envisaged in this Project, shall be designed by users themselves and not by Contractors.
- v. *Maintenance and operation:*
- Regarding the operation and maintenance phase of this Project, this audit has revealed that the environmental and social impacts that are likely to be generated during this life cycle stage, have not yet been assessed. With respect to the environmental impacts that would be expected during the SLC's operation, it would have been beneficial for the UM to anticipate the potential impacts such as by assessing the Project's contribution to climate change mitigation and adaptation, the transition to a circular economy, as well as to the protection and restoration of biodiversity and ecosystems. Concerning the social impacts related to this life cycle stage, the opportunity exists to assess for instance aspects related to employment opportunities including up and reskilling for all workers, as well as improved diversity policies and social inclusion.
- vi. *End-of-life:*
- This audit has revealed that the UM is still to draw up an end-of-life strategy and thereby assessing opportunities for disassembly, reuse and recycling. The UM contends that a single project cannot change national procurement practices but, it intends to study end-of-life scenarios as part of the research project itself.

3.9.6. Whilst acknowledging the potential benefits emanating from the Sustainability Checklist, the UM contends that considering environmental and social performance in parallel with economic considerations, for a project of this magnitude, would be extremely difficult to implement particularly with the current procurement rules. For instance, inserting all the expected criteria in the relative tenders would most likely discourage bidders, which is what happened to the UM in instances when the requirements were slightly different from the norm. Such situation could be a serious issue for the UM, particularly if tendering and contracting are bound by specific timeframes and the lack of bidders would imply that the tender would have to be re-issued and result in delays. In addition, the UM stated that the application of criteria other than cost would lead to appeals and consequently further delays.

3.9.7. The Department of Contracts (DoC) has also acknowledged the difficulties in applying the Sustainability Checklist and the criteria therein to the local context. According to the DoC, Malta is still struggling to successfully adopt the second Green Public Procurement (GPP) National Action Plan (NAP) without inflicting excessively high expenses on the contractors and taxpayers.

3.9.8. Nevertheless, the NAO still acknowledges the potential benefits of such a tool for public buyers. The Sustainability Checklist and similar tools, with the support of the necessary resources for effective implementation, would surely incentivise the shift towards sustainable development.

3.10. Conclusion

3.10.1. Sustainable infrastructure plays a key role in ensuring that the services provided at the UM, can be delivered in an effective and efficient manner. The UM has not only acknowledged the need to develop sustainable buildings and incorporated such target within its own Strategic Plan for the period 2020 to 2025 but, is currently in the process of developing the first capital projects of a considerable size, with such an objective in mind.

3.10.2. Despite that the SLC was still in its construction phase as at the time of drafting this Report, the architectural and structural designs as well as the measures proposed therein, are surely indicative that the Project's main objectives shall be attained once it is in operation. The model resource-efficient building with state-of-the-art research facilities, shall also host a number of University faculties and institutes, thereby providing a high-quality environment for interdisciplinary research.

3.10.3. The SLC Project, as designed, is expected to contribute towards the identification of resource-efficient and cost-effective solutions for sustainable living. Consequently, the outputs and outcomes that have been identified for this Project, as presented in the Programme Logic Model in the Key Facts section of this Report, shall be attained if the UM makes optimal use of the resources and opportunities at its disposal. This Project is also expected to contribute positively

to the modernisation of the local building industry, such as by adopting principles that enable a circular economy to take shape within the construction sector, thus facilitating the reuse and recycling of the various building components.

3.10.4. To-date works at the SLC, whilst reflecting the prevailing market rates, are behind schedule by more than a year. Such situation is not only attributable to a defaulting Contractor responsible for the preliminary works, but also due to various issues that led to justifiable cause for delay. These include fissures, archaeological cart-ruts as well as the moratorium on demolition and excavation works.

3.10.5. Consequently, it is now critical for the UM to dove-tail the remaining works to ascertain sound project management and hence avoid additional delays. These would not only have an impact on those Faculties and Institutes that eventually should be relocating to the SLC premises but will also likely have an impact on the costs and potentially also on the EU funding arrangement in place.

Chapter 4 | Campus Hub

4.1. Introduction

4.1.1. As far back as 2010, the University of Malta (UM) was already discussing initiatives on how to further attain its strategic objectives through growth in terms of broadening its academic base and attracting more students. In part, the attainment of these objectives necessitated significant infrastructural development on the main campus at Msida, which is being partly realised through the development of a University Residence and Community Complex, which was later known as the Campus Hub project.

4.1.2. As a Public Private Partnership (PPP) initiative, specifically through the issuance of a Concession, this project enabled the provision of several facilities including student accommodation, a language school, university office space, lecture halls as well as student amenities. The latter include mini convenience stores, electronics store, pharmacy, stationery and other ancillary commercial space including a food court and restaurants, commercial outlets as well as an underground car park.

4.1.3. The University's input in this project, as per approved Planning Application PA/07628/20, was around 8,781 square metres of the UM-owned land. On the other hand, the successful bidder for this project, that is Vassallo Builders Group Ltd, was responsible for the setting up of a subsidiary company, namely Campus Residence Malta Limited (CRML), which would be wholly responsible for the design, build and operate of this project for a period of 60 years. Considering all the floor areas within this complex, this would entail a total floor area of 80,709 square metres. The UM's main returns from this partnership would be financial reimbursements in the form of an annual ground rent as well as financial commissions according to the contractual terms and agreement regarding commissions on the revenue generated through residents referred by the UM for accommodation facilities and leasing of commercial outlets. The University would also be able to lease space within the Campus Hub from CRML at agreed rates. At the end of the 60-years agreement, the Contractor (CRML), would be obliged to return the Campus Hub infrastructure to the UM in good condition subject to normal fair wear and tear. On the other hand, the Contractor claims all profits generated through the project while assuming the risks of project delivery and operations. Table 10 refers.

Table 10: Campus Hub projected financial inputs and benefits

University of Malta		Campus Residence Malta Limited	
Inputs	Benefits	Inputs	Benefits
Transferring to CRML of 8,781 square metres of the UM owned land through a temporary emphyteusis for a period of 60 years	Financial reimbursements in the form of an annual ground rent	Setting-up of a subsidiary company, (namely CRML)	The Contractor claims all profits generated through the project while assuming the risks of project delivery and operations
Issuing of Request for Proposals for a Concession for the design, building and operation of a University Residence and Community Complex	Financial commission of 6 per cent on the revenue generated through residents referred by the UM for accommodation facilities	Invest in the design, building and operation of the Campus Hub project	
	Financial commission of six per cent on the leasing of commercial outlets	At the end of the sixty years agreement, CRML would be obliged to return the Campus Hub infrastructure to UM in good condition subject to normal fair wear and tear	
	Preference dividend gross of tax of 5 per cent (up to December 2030)		
	2.4 per cent of CRML's after tax profits (up to December 2030)		
	Leasing of space by the UM from CRML at agreed rates		

4.1.4. This Chapter revealed that at the conception stage of the project, certain matters, such as project planning, influenced Government's, and more specifically the UM's, ability to negotiate a better all-round deal when transferring the project risks to the contractor in this concession arrangement. Within this context, this Chapter discusses the extent to which the Campus Hub project within the UM fulfilled the University's needs in a cost-effective manner. This implies that the focus herein will be on aspects influencing the efficiency, effectiveness and economy of the project as depicted in the Programme Logic Model presented in the Key facts at the outset of this Report.

- 4.1.5. To this end, the Chapter adopts a chronological approach with respect to the development of this Project to discuss the following:
- i. Evaluating the extent to which the Campus Hub project reflects the UM's strategic objectives;
 - ii. Eliciting the relative needs and aspirations prior to the issuing of the Request for Proposals (RfP) through wide-spread consultations with stakeholders;
 - iii. Evaluating how the business case, tendering and planning issues influenced the project throughout its implementation;
 - iv. Incorporating green initiatives within the Campus Hub project;
 - v. Assessing how changing needs and competing interests influenced competition;

- vi. Adopting sustainability design and life cycle sustainability practices; and
- vii. Assessing the extent to which the project fulfills value for money criteria from a financial point of view.

4.2. The Campus Hub project reflects the UM’s strategic objectives

4.2.1. While the Campus Hub project was not directly referred to in the Strategic Plan 2020 – 2025, it forms an integral part of the UM’s Master Plan. Of note is that the previous two strategies, however, referred specifically to this project. In its assessment regarding the implementation status of the UM’s Strategic Plan as at end 2022, the University has opted to directly link the Campus Hub project with one of the core and enabling strategies presented therein. Table 11 refers.

Table 11: Campus Hub’s contribution to the relevant core and enabling strategies emanating from the UM’s Strategic Plan 2020-2025

Strategic Theme	Core Strategy	Enabling Strategy (i.e., measure)	Campus Hub contribution
1. Learning and Teaching	Develop physical environments which are conducive to learning	Increase investment in comfortable teaching spaces of high quality	The UM has leased Block O from the Campus Hub to increase its lecture room facilities
6. International Outlook	Strengthen and deepen student internationalisation in a context where Malta itself is a testbed of growing cosmopolitanism	Plan for Graduate Hub Residences	Campus Hub welcomed its first residents in January 2022
7. Sustainability	Extend energy efficient measures	Pursue energy efficiency in air-conditioning systems	Efficient air-conditioning systems
	Conserve water and reduce consumption	Improve water catchment and storage with large reservoirs in new buildings	The Campus Hub makes use of large water reservoirs that store most of the rainwater falling on the development
		Widen use of smart systems for water conservation	The Campus Hub uses a number of smart systems such as low flow taps, low flow showers, a water leak detection system, sanitary supply shut-off valves in toilet and bathroom areas
		Extend wastewater recycling and infrastructure for secondary applications	The Campus Hub makes use of second-class water for flushing and irrigation
8. Services and Administrative Support	Deliver physical infrastructure	Design modular physical spaces that can be shared and adapted to the University's evolving needs	Block O includes several lecture rooms which were designed by the Estates Directorate to accommodate groups of varying capacities, and which are intended to be shared for use by the various faculties depending on their needs. The layout of some of these lecture rooms allows flexibility in the distribution of desks. The block also includes a number of administrative offices and shared open spaces

4.2.2. Table 11 shows that the Campus Hub project contributes to the Strategic Plan 2020 – 2025. These seven action points were all attained in view that the Campus Hub construction, excluding the development relating to Block A, was concluded and it started its operations in January 2022.

4.3. During the early stages of project planning, consultation with stakeholders was not widespread

4.3.1. The appropriate level of consultation and good relationship management with all the potential stakeholders in a project is an essential requirement for its eventual success – particularly in its early planning stages when this process encourages a formal and structured needs assessment exercise. This process has a direct impact on the sustainability, profitability, and the eventual results of the project. The appropriate level of stakeholder consultation can serve as a strong tool to systematically manage the stakeholder relationships at multiple levels, namely notification, consultation and participation.

At the Pre-RfP stage consultations and coordination excluded a formal public consultation on the project and broad discussions with the main stakeholders

4.3.2. This review noted that during the planning stage, consultation was mainly carried out with the UM's internal stakeholders, particularly within the University Council, the Finance Office, the Estates, Facilities and Capital Development Directorate and the Malta University Language School. Moreover, during the early planning stage of the Campus Hub project, as is the case with similar projects of the same nature and scale, the project's brief was available in the public domain during the application for planning permit process. The project planning approval did not necessitate that an environmental impact assessment should be carried out.

4.3.3. This level of consultation is considered an opportunity for major stakeholders to contribute to the development of the project by presenting their feedback at a very early phase, indeed prior to the issue of the Request for Proposals (RfP). Yet, on enquiry, the UM noted that it did not receive any remarks concerning the Campus Hub project.

4.3.4. The UM contended that its consultations commenced early in 2007, when it surveyed international students' attitudes towards studying at the University of Malta. The aim of this study, which was based on an online questionnaire and five focus groups, was to find out the perceptions of this category of students about their experience of studying at the University over the previous four years. However, whilst acknowledging the benefits of this study and the importance of carrying out such studies on a regular basis, the referred document was not directly linked to the planning and development of this project. Concerns on this study being considered as a consultation document is that it pre-dates the issue of the RfP by eight years.

- 4.3.5. The National Audit Office (NAO) does not consider that this level of consultation before the UM's issue of the RfP was appropriately widespread. It excluded a formal public consultation process – as is the norm with projects of this magnitude – where the project is discussed in significantly more detail than it would be in a project brief which was drawn up for planning purposes.
- 4.3.6. While acknowledging the input of the various stakeholders' representatives within the University Council, the UM did not hold broad consultation and coordination sessions with other major stakeholders such as Mater Dei Hospital (MDH) (especially in the light that the land upon which this project was to be implemented had planning restrictions limiting its use to educational and health/medical reasons). The insufficient consultation and policy coordination with the Hospital were to have a significant effect in the project implementation phase with respect to the location of the Medical School – an issue which at the time of drafting this Report remained unresolved.
- 4.3.7. Similarly, the conflicting policies between the Ministry for Education and University regarding the car parking facilities within the Campus Hub also led to student protests over parking fees.
- 4.3.8. Nonetheless, the consultation process undertaken led to the development of the University's Master Plan which outlined the University's vision and its need. Secondly, the project's brief was developed which was eventually reflected in the Request for Proposals which was issued by the UM in August 2015.

Post-RfP consultation with stakeholders did not settle issues regarding the medical school and the car park

- 4.3.9. The UM also provided the NAO with other documentation related to the consultation undertaken with stakeholders after the publication of the RfP and the signing of the concession contract. This documentation mainly related to:
- i. A survey which was conducted by CRML amongst students who visited their stand during the 2019 Freshers Week. The scope of this survey was to determine student's preferences regarding a number of issues, namely, accommodation preferences, facilities desired and the type of outlets which students preferred on the Campus Hub project.
 - ii. Discussions undertaken with Earth Systems students where, in agreement with the academic staff of the institute, have been entrusted with the planning and implementation of the landscaping of the Campus Hub. This project also constituted part of the European Credit Transfer and Accumulation System (ECTS) required for these students' academic year. On their part, CRML has allocated a budget to enable these students to implement this project on the Campus Hub building.
- 4.3.10. This Office acknowledges the importance of ongoing consultation, throughout the concession operation period, between the UM, the private operator, student organisations and other stakeholders. Nonetheless, issues regarding car parking and the medical school remained mainly

unresolved (following Section refers). This is particularly evident due to conflicting positions and coordinating issues between the UM and the Government.

4.3.11. With regards to the medical school, the UM argued that the University foresaw the potential relocation of the medical school and proposed a solution as far back as 2011. The UM further stated that its proposal was presented to the stakeholders including the Foundation for Medical Services. Due to the change in government, this proposal was resubmitted to the Government in August 2013 and the relocation of the Medical School featured in the 2022 Electoral Manifesto of the party in Government. It is apparent that conflicting positions between the UM and the Government is stalling progress towards reaching a decision on the potential relocation of the medical school. Matters are being further complicated since stakeholders are not always coordinating their efforts, particularly when discussing the medical school issue with the contractor. To this end, the NAO notes that the UM was not always present for discussions between MDH and the contractor which started before October 2019, four months after the signing of the contract. Despite its exclusion from certain meetings, the UM endorsed the Planning Application (PA/07628/20) which inter alia included the development of the medical school within Block A of the Campus Hub. Within this context the Ministry for Health noted that it held various meetings with Campus Hub Representatives to address its concerns through the redrawing of designs, for the potential take-over of Block A as a medical school. However, this Ministry contends that following further feasibility studies, it became evident that the Concession Agreement entered into by UM – was such that it did not permit open competition. The Ministry for Health pledged its willingness to continue discussions with the main stakeholders on this matter.

4.3.12. The Campus Hub car park was characterised by coordinating issues between the UM and the Government, stalling decisions relating to the use of this facility by the University. Documentation forwarded to this Office by the UM show that the Ministry for Education held discussions with the contractor prior to the signing of the preliminary agreement in August 2016. Similarly to the medical school issue, the UM was not leading these discussions. To date, an agreement on car parking issues, primarily the allocation of parking spaces for use by University staff and students as well as the potential revenues due to University, remain outstanding. In the meantime, the car park is solely managed by CRML. Section 4.4 provides further details on this matter.

4.4. Business case, tendering and planning issues influenced the project throughout its implementation

4.4.1. Generally accepted principles dictate that a sound business case is a pre-requisite to the success of any project. Similarly, tendering is considered as a means to encourage fair competition which not only influences financial and economic considerations but is also conducive to ensure the highest quality in the project design and specifications. Project planning is also key since it ensures that its implementation is kept on track from a budgeting and milestones point of view. To this end, the NAO reviewed the extent to which the UM utilised these management tools to

ensure that the Campus Hub project delivers in accordance with its intended objectives. The following paragraphs refer.

A detailed project financial evaluation was only carried out as part of the tender evaluation process

4.4.2. One of the first steps to be undertaken prior to embarking on a project is the drafting of a business case where the needs, objectives as well as financial and economic considerations are evaluated against various scenarios and possible options. In this case, this would entail assessing whether it would be possible or more feasible for the UM to implement the project directly or transfer the project’s design, build and operational risks through a concession agreement.

4.4.3. The UM noted that at the outset it commissioned PricewaterhouseCoopers (PwC) to conduct and prepare a business case concerning the development of the Campus Hub project. To this end, the NAO reviewed PwC’s proposal for advisory services in relation to developing a PPP model for the University Residence Project (later to be known as the Campus Hub) dated May 2011. At the preliminary stage of this project, the University sought consultancy services with respect to project viability of the proposed approach. Nonetheless, by the time of drafting this Report, the UM did not forward the ensuing consultancy report. Unfortunately, the UM noted that this report was misplaced during the transfer of the MUHC offices from Lija to Campus Hub. Consequently, the NAO has no visibility as to the conclusions and recommendations of this report.

4.4.4. The UM, however, carried out a financial evaluation of the Campus Hub project following the receipt of a bid through the RfP. A finance committee, appointed by the University Council in October 2015, was responsible to review the financial aspects of the only proposal submitted for the University Residence and Community Complex. This committee had to confirm that the proposal received was compliant with all the financial and business requirements stipulated in the RfP (Concession option). Furthermore, it compared the only proposal received with two other alternatives, namely that the University:

- i. carries out the project itself or through its group of companies (The UM investment option).
- ii. foregoes the project and attempts to continue, insofar as is possible, with its former Malta University Residence operations (this was known as the “As is” option).

4.4.5. This audit noted that in some cases, the UM’s financial project appraisal was subject to some limitations and in some instances the assumptions considered were questionable. To varying degrees, these issues impacted the difference in the Net Present Value (NPV) between the two options (that is, the UM Investment Option and the Concession option) which however did not impact on the overall outcome of the evaluation. Such circumstances potentially weakened the UM’s position when engaging in further negotiations with the contractor. Section 4.8 refers.

- 4.4.6. The Financial Tender Evaluation Report prepared by the UM's Finance Committee noted that the UM Investment option's NPV was €4.4 million more favourable than the Concession Option's NPV. However, in accordance to NAO workings, this difference increased to €11.6 million. This implies that on the basis of the information available at the time, the cost for the UM to transfer the design, build and operational risks to the contractor increased by €7.2 million (See Section 4.8).
- 4.4.7. Moreover, following the awarding of the concession, the financial project appraisal was not updated to reflect the changes in the project and the new realities incurred. The impact of not updating these appraisals related to the forfeiting of opportunities to enable parties to the project to take timely corrective action should such a need materialise. In reality, the UM was not in a position to implement the project itself, rendering the financial project appraisal undertaken, as an academic exercise. Nonetheless, the NAO contends the following:
- i. The financial project appraisal was to be continually updated to reflect the change in market rates incurred during the three-year delay in project commencement, that is, from 2016 to 2019 which materialised due to planning permit issues. This review noted that various rates were significantly impacted by the COVID-19 pandemic as well as due to the Russian and Ukraine war.
 - ii. Similarly, the appraisal did not include the significant changes in the project that will result through the possible relocation of the Medical School within Block A of the Campus Hub project.
 - iii. The appraisal was not updated to take into account the increase of 17 car park spaces and the ensuing increase in revenue following the 2020 changes to the planning application, which increased the car park capacity to 473.
 - iv. The appraisal was not updated to note that CRML had to double its investment cost due to projects' delay and the inflationary effect on construction related products.
- 4.4.8. The UM maintained that the project investment appraisal was a standalone exercise carried out to evaluate the one proposal submitted and that it does not feel the need to update this exercise to reflect project changes. This Office, on the other hand, believes that such financial costing exercises are to be updated on a continuous basis to reflect changes in realities as the project develops. In addition, such an exercise ensures that that the project's viability is continuously assessed, and appropriate action is undertaken if any issues of concern arise or new strategic decisions are required about the project's ongoing development.

The UM did not capitalise on the benefits associated with tendering through the Department of Contracts

4.4.9. In line with procurement legislation at the time, the UM assumed full responsibility for the tendering process of the Campus Hub project. To this end, as outlined in the previous Sections of this Chapter, in August 2015, the UM issued a Request for Proposals with regards to a concession for the designing, building and operating of the University Residence and Community Complex. Throughout this process, the UM sought the assistance of MIMCOL (Malta Investment Management Company Limited) for its input during the drafting of the RfP document.

4.4.10. Although compliant, the UM did not capitalise on the benefits associated with tendering through the Department of Contracts (DoC). The UM issued an RfP thus forfeiting the benefit of the DoC's expertise in formulating tenders. Moreover, through this approach, publication of the RfP was mainly limited to local sources, thus not ensuring widespread exposure overseas. Throughout this audit, the UM contended that the former Director of Procurement discussed this project with DoC and they were referred to MIMCOL for assistance. However, when further queried by this Office, the UM was not in a position to support this statement with the appropriate documentation and audit trail of such discussions between the UM and the DoC. On the other hand, the DoC maintained that it was neither involved nor granted its approval for the UM to receive competitive bids relating to this concession. Moreover, the DoC reiterates that it never referred UM to MIMCOL for assistance.

In some cases, the RfP did not include clauses which safeguard both the UM's and bidders' interest

4.4.11. The non-involvement of the DoC in the tendering process resulted in the UM forfeiting the potential benefits of the DoC's expertise. In part, this circumstance manifested itself in the following concerns:

- i. The RfP did not include a right of appeal clause. According to various experts in the field of tendering, such as the DoC, this is considered as a standard clause which should always be included in a tendering document. This clause safeguards bidders' interest and ensures that a fair tendering process is carried out.
- ii. Clawbacks provisions were not extended to incorporate situations where the UM would be party to a share of the profits generated throughout the entire lifetime of the concession. During discussions with the UM officials, it was contended that, in some instances, the University was restricted from negotiating better deals due to the direction given from the Ministry for Education. The UM opted for a secure income stream rather than profit sharing, that is Cumulative Preference shares and a share of Revenue rather than profits. Thus even if CRML registers a loss or registers profits which are offset by accumulated losses, UM will have an income stream. However, the NAO contends that these two are not mutually exclusive.

- iii. The minimum ground rent to be paid by potential bidders to the UM was not established in the RfP. Such a minimum amount would have ensured that the UM would be guaranteed an adequate return from the transfer of its land to the successful bidder.
- iv. The minimum commission due to the UM regarding income from accommodation and income from the rental of commercial outlets was not outlined in the RfP. Again, if such a minimum amount were established in the RfP, the UM would have ensured an expected minimum return from the investment made.
- v. The RfP did not establish a concession fee, which is currently a feature being included by the Department of Contracts when it deals with Concession Agreements.
- vi. The UM constantly maintained that the inclusion of the Car Park within the Campus Hub project was a policy directive by the Ministry for Education. These issues were envisaged to be addressed by a contract between the CRML and the Ministry for Education, Sport, Youth, Research and Innovation, which contract never materialised. Clauses related to the car park did not clearly establish the rights and obligations of parties as well as the students' interests, particularly the mechanism which establish the fees to be applied to service-users. Throughout this performance audit, the UM noted that despite being included in the RfP, the Car Park was never part of the UM's requirements with respect to this project.
- vii. Despite that the RfP stipulates that the UM is to be handed back the Campus Hub at the end of the concession in "good state of repair and operation, fair wear and tear expected", this term is not appropriately defined. Although Article 10 (ii) of Volume 2 Section 1 of the RfP implies that "good state of repair" relates to legal and internationally recognised industry standards and is commonly used through the concept of "Bonus paterfamilias" enshrined in Maltese Law (Ch 16- Civil code Art 1132), this performance audit opines that the RfP should have been clearer in what is meant by a good state of repair. For instance, litigation may arise as to whether this clause implies that the Campus Hub is safe to continue with their intended businesses in the longer term.

In some cases, the Campus Hub contracts did not fully embrace best practice contractual clauses

4.4.12. The Campus Hub project is regulated through five agreements between the UM and CRML. A review of these agreements was considered as necessary in view that contractual clauses are deemed critical to the realisation of project objectives, including those related to deliverables and value for money. This performance audit revealed that in some instances, the contractual provisions were not always conducive to a balanced Agreement between the two parties.

4.4.13. The contracts under review were the following:

- i. A **Suretyship Agreement** dated 29 May 2019 covering all the obligations arising under the Agreements, namely the Emphyteutical Deed, the General Obligations Agreement and the Malta University Residence (MUR) Shares Agreement.
- ii. The **Temporary Emphyteusis Deed** signed on 29 May 2019 relates to the emphyteutical concession relating to the University-owned land designated for the Campus Hub project. Through this Agreement, the UM granted the site by a temporary emphyteuses for 60 years from 1 June 2019. The Deed sets out the yearly ground rent, whereby a reduced rate was established for the first three years, which rate was fixed at €150,000 annually and increases through an escalation rate. This Deed includes, amongst others, the Schedule of Time Frames, Approved Master Plan and the General Obligations Agreement. An amended agreement was signed on 18 March 2022 to reflect changes in the Tenancy Agreement, schedule of timeframes, approved master plan and completion dates.
- iii. A **General Obligations Agreement** (GOA), dated 29 May 2019 between the UM and CRML, sets out the general terms which apply once the UM transfers to the Company the Property under the Emphyteutical Deed. This Agreement is considered to form an integral part of the Emphyteutical Deed.
- iv. A **Tenancy Agreement** including a letter agreement between the UM and CRML were signed on 29 May 2019 to lease 1,500 sqm to be utilised as a language school and Malta University Holdings Company (MUHC) administrative offices, as well as 1,100 sqm for the childcare centre. The former lease was scheduled to commence on 1 January 2022 while the latter area was scheduled to be leased from 1 January 2023. The Tenancy Agreement is valid up to 31 December 2032. The Tenancy Agreement was modified through Amendment No 1 to the Tenancy Agreement No 1 dated 11 February 2021. The main changes related to an increase in the area leased to a total of 3,688 sqm and subsequent rise in the leasing rate for the additional 1,088 sqm leased.
- v. The **Transfer of Campus Holdings Limited (CHL) Shares Agreement**, dated 21 December 2021, relating to the sale of 291,172 Ordinary shares of one euro per share in the capital of Campus Hub Ltd by the UM and MUHC to Campus Residence Malta Ltd.²³

4.4.14. The preliminary agreement signed on 31 August 2016 was excluded from this analysis. This approach was adopted as the preliminary agreement included a draft copy of the aforementioned agreements that were then agreed on and signed in 2019 and 2021.

²³ This Agreement was referred to initially including in the Preliminary Agreement as MUR Transfer of MUR Shares Agreement.

4.4.15. The five agreements governing the relationship between the UM and CRML were reviewed against best practice contractual clauses. The criteria were derived from generally accepted practices and literature on the subject matter. Table 12 refers. The analysis was carried out by using a traffic lights system, whereby:

- i. green means that the contractual provision is included in the agreement under review;
- ii. orange means that the clause is included in the agreement but there is room for improvement; and
- iii. red relates to contractual provisions not included in the agreements under review.

Table 12: Campus Hub Agreements benchmarked against best practice contractual clauses

Common Contract Provisions	Suretyship agreement	Emphyteutical Deed including Amended Emphyteutical Deed	General Obligations Agreement	Transfer of CHL Shares Agreement	Tenancy Agreement No. 1, including Letter Agreement No. 1 to Tenancy Agreement and Amendment No. 1 to Tenancy Agreement No. 1
Access and disclosure	NA				
Assistance provided to the Contractor	NA	NA	NA	NA	NA
Confidential information	NA				NA
Conflict of interest	NA				NA
Contract variations	NA				
Disclosure of information (confidentiality)	NA			NA	
Dispute resolution					
Insurance	NA		NA	NA	
Intellectual property rights	NA	NA		NA	NA
Key personnel	NA			NA	NA
Liabilities and indemnities					
Payments					
Penalties and incentives					
Securities and guarantees					NA
Sub-contracting	NA			NA	
Termination and contract end-dates					
Transition Agreements	NA				
Warranties and fitness for purpose	NA			NA	

Note to the Table:

- i. The majority of the clauses under the Suretyship Agreement are listed as non-applicable as the aim of a surety agreement is that the signee accepts the responsibility for the contractual obligations, usually relating to payments, defaults and liabilities.

4.4.16. Table 12 shows that the agreements between the two parties follow best practices contractual clauses. Nevertheless, in some cases, these clauses did not always lead to a situation whereby the partnership between the two parties was a balanced one. The following refers:

- i. The GOA provides for transition arrangements and fitness for purpose clauses as the property is to return to the UM following the 60-year emphyteutical concession. The agreement highlights that the building needs to be fully functional and compliant with permits and regulations. The GOA also refers to an inspection of the property that needs to be carried out by CRML in the presence of a UM technical officer. The property is to be returned “in a good condition as the commencement of the Operational Period of the Property, normal fair wear and tear and changes or alterations properly made by the Company as permitted under the Agreement excepted”. However, as outlined in paragraph 4.4.11 of this Chapter, the same Agreement does not define what constitutes normal fair wear and tear. This issue is rendered more critical as structural Eurocodes note that the design life of concrete framed buildings is estimated at 50 years. However, the UM states that the rationale for the use of generic wording can be seen in Art 10 (ii) of the Emphyteutical deed, which stipulates that the buildings should be “at all times in a good state of repair in accordance with the applicable law and internationally recognised industry standards”.
- ii. The GOA does not include provisions relating to clawbacks whereby the UM will be party to a higher share of profits if these increase significantly throughout the life-time of the concession. The Transfer of CHL Shares Agreement dated 2021 provides for the UM to maintain a number of preference shares up to December 2030, which entitle it to profit sharing. In this regard, the UM is only entitled to this type of financial return for nine years out of the remaining 58-year period of this concession. The UM argued that it opted for a secure income stream rather than profit sharing, that is, Cumulative Preference shares and a share of Revenue rather than profits. Thus, even if CRML registers a loss or registers profits which are offset by accumulated losses, the UM will have an income stream. However, the NAO contends that these two are not mutually exclusive.
- iii. Amendment No 1 to the Emphyteutical Deed provides the completion dates and description of each phase. Phase 3 of the project relates to the development in Block A. The contract outlines that this area can house either additional student residences or educational facilities for the University of Malta. Moreover, it extends to include a proviso that unless an agreement is reached between the parties by 31 December 2022, it is up to the contractor, in agreement with the UM, to decide the use of the site- whether for educational purposes, residential accommodation or to retain the building as is. Furthermore, the latest developed permit grants CRML to build this area as a Medical School. This implies that the UM has allowed for a possible contract variation that goes outside the scope of the RfP for a University Residence and Community Complex, which outlined that “*the University of Malta has the ambition of developing well-located student accommodation, and a range of supporting*

²⁴ UM, 2015. RfP, Volume 6, p. 93.

facilities, so as to create a community and social hub, in close proximity, and directly linked, to the heart of the University campus.”²⁴ Moreover, through such a contract variation the UM has encroached on the principle of fair competition as, at RFP stage, bidders were not aware that six levels in one of the Blocks could cater for the Medical School. This implies that potential bidders were not in a position to anticipate the possibility of generating revenue through the leasing of space within the Campus Hub to accommodate the Medical School. This situation mainly materialised as neither Government nor UM issued a separate call for bids to relocate the Medical School.

- iv. The Emphyteutical Deed, GOA and the CHL shares agreement do not provide for cases of Conflict of Interest. The absence of such clauses can impact on the UM’s reputation and income.

A number of key issues which would influence the project finances and outcome were not fully considered at the project’s planning stages

4.4.17. Planning is a management function which critically influences the timely delivery of project inputs, outputs, outcomes and impacts. The planning function concerning a project of a significant magnitude, such as the Campus Hub, assumes key importance. Within this context, the NAO verified that the UM had the appropriate planning structures in place. These comprised various stakeholders namely the University Council, the Finance Office, the Estates, Facilities and Capital Development Directorate and the Malta University Language School. This framework generally resulted in an effective planning function. However, three main issues were not fully addressed and remained outstanding until the drafting of this Report. These areas relate to the possible relocation of the Medical School, and the parking spaces and fees to be charged at the Campus Hub parking facilities. In part, this situation developed due to the diverse interests of stakeholders. Refer to Section 4.3.

4.4.18. The Campus Hub project was characterised by interests from some government Ministries and entities which eventually influenced the planning and subsequent implementation of the project. This review noted that even though the UM issued a request for proposals and entered into a contractual agreement with a private operator, other side negotiations were undertaken between the contractor and other governmental entities. The UM stated that they were not always privy to such discussions and negotiations. The car park and medical school issues are cases in point.

Car Park

4.4.19. Throughout this performance audit, the UM noted that despite being included in the RfP, issued in August 2015, the Car Park was never part of the UM’s requirements with respect to this project. It constantly maintained that the inclusion of the Car Park was imposed on the UM by the Ministry for Education.

4.4.20. Upon this direction, the UM requested potential bidders to the RfP to submit a financial option for the lease of underground car parking spaces within the Campus Hub. To this end, the chosen

bidder offered to allocate an additional 140 parking slots at the lease rate of €1,060 per slot per annum, increasing annually by the rate of inflation. Although the UM accepted the bid in total for the design, build and operate of the Campus Hub project concession, the subsequent contractual agreement, signed in May 2019, did not include any provisos concerning the leasing of car parking spaces to the UM. The lease of such parking spaces was to be negotiated and concluded directly between the successful bidder and the Ministry for Education.

4.4.21. The Ministry of Education and the Contractor embarked on fresh negotiations during 2020 and 2021. To date, these parties have not reached or signed an agreement. It is to be noted that the UM consistently stated that communication between the Ministry and the University was not constantly maintained. This situation shows that the needs of all the relevant stakeholders were not appropriately addressed at the planning stage of this project. In part, this was brought about through ineffective communication and coordination – a situation which through proper planning could have been addressed at the very outset and which should have been resolved at the competitive bidding stage.

Possible relocation of Medical School within Block A of the Campus Hub

4.4.22. Another significant change influenced by third party interests, and which was not fully addressed at the Project's planning stages, related to the possible relocation of the medical school from MDH to Block A of the Campus Hub. Section 4.3 highlights the main issues regarding this proposed project.

4.4.23. In September 2019, just four months after the signing of the contractual agreement between the UM and the private operator, Block A within the Campus Hub started being envisaged as a potential extension of the Mater Dei Hospital, particularly for the relocation of the Medical School from MDH to Block A within these premises. During this period, Mater Dei Hospital and the Ministry for Health entered into separate negotiations with the private operator for the rental of space within this Block which to-date is still under construction. The UM, which is the signatory of this contractual agreement, stated that they were excluded from such negotiations.

4.4.24. The UM argued that in order to accommodate the Government's request, in March 2022, the University signed an addendum agreement with the private operator. It was agreed that by end of 2022 a decision had to be taken by the UM, or any third party on behalf of, or for the benefit of the UM, whether to use Levels 5 to 10 of Block A to house additional student residences or as educational facilities. In the event that a decision was not taken by this time, the prerogative on the way forward would be wholly the private operator's. To date, this impasse has not been resolved. Nonetheless, preliminary workings seen by the NAO indicate that the relocation of the medical school to the Campus Hub would now be significantly more expensive than if such a move was integrated in the RfP at the outset.

The UM underestimated its need to lease space at the Campus Hub which resulted in incurring higher rates

- 4.4.25. Through the agreement signed in May 2019 between CRML and the UM, the latter was able to lease space amounting to 2,600 square metres within the Campus Hub complex from the former at an agreed rate of €75 per square metre per year and which is to be increased every five years at an established escalation mechanism. According to the Agreement, which expires in December 2032, this space was expected to be utilised as a language school, for the MUHC administrative offices, for lecturing and conference facilities and to house a childcare centre.
- 4.4.26. The UM, however, underestimated its need to lease space at the Campus Hub. Through an amendment to the original agreement, signed on February 2021, the UM leased from CRML a further 1,088 square metres of space at the additional rate of €153 per square metre per year and which again is increased every five years at a specified escalation mechanism, which is twice the original rate agreed. On its part, the UM contended that in the amendment agreement signed in 2021 it managed to negotiate a better escalation mechanism which offset the original rate on the 11th year.
- 4.4.27. In part, this is attributable to unforeseen developments as the UM made it clear that it leased this additional space in order to vacate other leased property which was being acquired at a higher rate. While the NAO acknowledges that the UM acquired this additional space at a favourable rate, when compared to the prevailing market prices in 2021, this Office reiterates that the University could have anticipated such a problem much earlier and negotiated an even better rate, which at the time of signing of the 2019 agreement was around €75 per square meter – a rate that was locked at the RFP stage.

4.5. The Campus Hub project managed to incorporate various green initiatives

4.5.1. A more detailed examination of the Campus Hub's building envelope revealed that it was designed with the intent of maximising energy performance and minimising the environmental impacts particularly during its operation. Table 13 presents some of the green initiatives that have been included in the Campus Hub project.

Table 13: Campus Hub green initiatives

Element	Description
Flooring/roofing	The patented system 'Bubble Deck' was used for flooring/roofing slabs, consisting of hollow spheres made of recycled plastic that are sandwiched between structural steel mesh grids and surrounded by concrete. This eliminates the central concrete that has no carrying effect and results in significant CO ₂ savings as well as faster construction times.
External insulation	Insulation boards were used to cover both the reinforced infilled hollow concrete blockwork used for external walls, as well as the walk-on flat roofing system.
Windows and double-pane low e-glazing	The combination of thermal-break window sections with low-e coated double panes limits the energy losses in winter and reduces the heat gains in summer. Moreover, windows are set back to the interior face of the room for protection from the elements.
Lifts	Variable Voltage Variable Frequency (VVVF) gearless motor lifts that are efficient and do without gear oil and/or hydraulic oil with their associated environmental impact.
Renewable and low-carbon energy sources	A proportion of the development's energy demand shall be generated through photovoltaics (around 496MWh per annum) and, heat pumps are used for water heating.
Water	Use of large water reservoirs that store most of the rainwater, use of second-class water for flushing and irrigation, low flow taps and showers, a water leak detection system, reuse of water condensate from all air conditioning systems and an efficient irrigation system.

4.5.2. Moreover, the NAO was recently informed that there are other green initiatives in the pipeline or at implementation stage. These namely relate to the following initiatives:

- i. The students within the Institute of Earth Systems were entrusted with the planning and implementation of the landscaping project at the Campus Hub, as part of their ECTS requirement for these students' academic year and, CRML has voted a budget of €10,000.
- ii. The installation of a solar panel system on the south facing structures that has been approved by CRML.
- iii. CRML is evaluating the feasibility of implementing a wind turbine 'tulips' project.

4.6. Changing needs and competing interests resulted in unfair competition

4.6.1. Whilst acknowledging the benefits arising out of the various green initiatives at the Campus Hub, this audit has revealed that the proposal put forward by the Contractor was not fully compliant with the UM’s Terms of Reference (ToR) and development brief. Table 14 presents some of the issues that were highlighted by the UM in its Technical Tender Evaluation Report dated 11 January 2016.

Table 14: Technical compliance issues between RfP specifications and the approved submitted bid ²⁵

RfP Specifications	NAO’s observation
Maximum permissible site coverage 40 per cent	Site coverage as per approved planning permits amounts to around 54 per cent
Total gross floor area between 18,500 sqm and 21,500 sqm	Total floor area of 80,709 sqm as per latest planning application PA/07628/20
Residential use circa 12,000 sqm to 14,000 sqm	Total area of bedrooms including kitchen, living and dining as well as access corridors amounted to around 22,679 sqm as per PA/07628/20

4.6.2. As shown in Table 14, the UM was not privy to certain information that was required to verify full compliance with the ToR specified in the RfP. To this end, the maximum permissible site coverage as well as the total allowable gross floor area for the proposed development, surely constituted two of the critical elements with respect to the expected return on investment and consequently the level of response to the RfP. Moreover, it is to be noted that the UM was not completely satisfied with the architectural quality of the proposed development.

4.6.3. Nonetheless, the UM decided to proceed with this proposal, subject to the setting up of a Joint Design Overview Committee to reach an agreement on the issues raised in its Technical Tender Evaluation Report. The outcome of such discussions was Planning Application PA/07926/16 that was approved by the Planning Board/Commission on 20 December 2018. The decision to proceed with a proposal that does not completely satisfy the UM’s ToR, could be attributable, in part, to the fact that the proposal put forward by Vassallo Builders Group Ltd was the sole bid received by the UM.

4.6.4. Additionally, due to changing needs and competing interests, the approved plans were amended by PA/00456/17 and PA/07628/20 that were approved on 3 November 2020 and 3 March 2022 respectively. Although this project was issued through an RfP and not a Request for Quotation (RfQ) as contended by the UM, the multiple changes from the original plan raise serious doubts about fair competition. Table 15 presents the changes that were introduced by the latest approved planning application.

²⁵ UM, 2015. RfP, Volume 6, p. 93.

Table 15: Variations between approved planning applications

Segment	PA/07926/16	PA/07628/20
Total floor area (sqm)	73,318	80,709
Commercial amenities (sqm)	3,068	4,275
Rooms (no.)	690	521
Parking (no. of spaces)	456	473
Block A	Level 1 – Language school Levels 2 to 10 – Hostel rooms	Level 1 – Vernacular building and pharmacy Levels 1 to 10 – Medical school
Block B	Levels-2 to 1 – Commercial Levels 2 to 10 – Hostel rooms	Levels-2 to 1 – Commercial Levels 2 to 10 – Hostel rooms
Block C	Levels-2 to 1 – Commercial Levels 2 to 9 – Hostel rooms	Levels-2 to 1 – Commercial Levels 2 to 9 – Hostel rooms
Block D	Level 1 – Food court Levels 2 to 9 – Hostel rooms	Level 1 – Retail Levels 2 to 9 – Hostel rooms
Block E	Level 1 – Language school Levels 2 to 10 – Hostel rooms	Level 1 – Food court Levels 2 to 10 – Hostel rooms
Block O	Level 0 – Stores Levels 1 to 2 – Open lecture space Levels 3 to 6 – Offices	Level 0 – Stores Level 1 – Commercial Levels 2 to 8 – School and Admin
Block S	Levels 1 to 5 – Residence Admin	Level 1 – Retail Levels 2 to 5 – Offices

4.6.5. Table 15 shows that the approval of PA/07628/20 has brought about various changes to the formerly approved plans. Firstly, the overall area of this development has increased by around 7,391 square metres, which is equivalent to a ten per cent increase in the gross floor area from PA/07926/16.

4.6.6. The second most noticeable change between the approved permits, which could have a significant impact not only on the return on investment associated with this Project and consequently the level of competition that the Campus Hub project managed to attract but also on the remaining space that would be available for utilisation by other activities, is the size of the commercial amenities. Similarly, this has increased substantially from 3,068 to 4,275 square metres, which is equivalent to a 39 per cent increase. However, it is to be noted that such an increase has not exceeded the maximum allowable commercial space as per the UM’s RfP, that is 6,500 square metres.

4.6.7. Another noticeable change was the approval of an additional two floors to Block O. This block is the building nearest to the University entrance (West gate). The UM is currently renting this space from CRML at the rates of €75 and €153 per square metre per year due to the increasing demand for office as well as lecturing space.

4.6.8. The remaining changes were generally a result of the change in use of Block A, which in 2022 was approved as a Medical School with a pharmacy on Levels -1 and 0, with a chunk of the footprint containing the retained vernacular structure. On the other hand, in 2016 Block A was approved as a language school on Level 1 and Hostel rooms on Levels 2 to 10. Since by the end of 2022 there was no clear direction from Government regarding the preferred use of this Block, CRML may now decide whether to utilise such space for student accommodation or for other educational purposes.

4.7. Various sustainability related aspects may have been overlooked from a life cycle perspective

4.7.1. Similar to the analysis carried out for the other capital project under review, the Sustainability Checklist was only made available to the UM in 2022. Consequently, this Checklist could not have been utilised during the pre-tendering, tendering and the construction phases of the Campus Hub to ensure that all sustainability aspects are duly taken into consideration at every stage of its life cycle.

4.7.2. Another limitation is that through this concession the UM has delegated the entire process, that is the designing, building as well as operating of this Project to a third party. Despite the UM’s representation on CRML’s Board of Directors, the University’s involvement could have been somewhat limited to enable a proper analysis of all sustainability aspects, particularly when compared with the SLC Project.

4.7.3. Nevertheless, the UM has attempted to complete such Checklist for the purpose of this performance audit. Table 16 presents the results of such an assessment with respect to the Campus Hub Project.

Table 16: Sustainability Checklist analysis vis-à-vis the Campus Hub Project

Stage (phases of activity)	Sustainability aspects taken into consideration by the UM		Sustainability aspects Not taken into consideration by the UM		Sustainability aspects Not directly applicable to this capital project		Total sustainability aspects	
	(No.)	(%)	(No.)	(%)	(No.)	(%)	(No.)	(%)
Preparation for tendering ²⁶	16	72.7	6	27.3	0	0	22	100
Tendering	9	30	18	60	3	10	30	100
Construction	6	42.9	7	50	1	7.1	14	100
Use	3	50	3	50	0	0	6	100
Maintenance and Operation	3	42.9	4	57.1	0	0	7	100
End-of-Life	0	0	4	100	0	0	4	100
TOTAL	37	44.6	42	50.6	4	4.8	83	100

²⁶ In this case the Preparation of Tendering and Tendering phases were assessed against the Request for Proposals ‘Concession for the design, building and operation of a University Residence and Community Complex at Tal-Qroqq Msida’ dated 11 August 2015.

4.7.4. Despite not being deemed as a requirement for this Project by the Planning Authority, an Environmental Impact Assessment (EIA) would have surely contributed towards a more detailed consideration of the related environmental and socio-economic impacts throughout its lifecycle. A more detailed review of the UM's replies to the Sustainability Checklist as well as any supporting documentation that was made available to this Office revealed the following issues with respect to some of the lifecycle stages:

i. *Preparation for tendering:*

- Like the situation presented for the other capital project under review, the likely direct environmental impacts of the project over its lifecycle have not been identified and estimated in terms of environmental pollution and biodiversity. To this end, the precautionary measures highlighted by the UM were more related to the pollution monitoring during the actual works rather than an estimation of the Greenhouse Gas Emissions (GHG) emissions during the entire lifecycle of the Project.
- Similarly, the likely direct social impacts of the Project over its lifecycle in terms of, for instance, employment opportunities, equality and distributional impacts, like the integration of disadvantaged groups, have not been identified and estimated at the pre-tendering stage. The UM contends that the Campus Hub led to a greater integration of foreign students into the campus community life, with the Project including also a multifaith room, a facility that was missing from the campus and so essential in rendering non-Catholic students feel welcomed and catered for. Moreover, the UM noted that the Campus Hub has significantly increased the supply of accommodation in the University Heights area and, in the process, eased the overheated rental market in the area.

ii. *Tendering:*

- A common reply provided by the UM to the tendering stage related questions as presented in the Sustainability Checklist, was that this Concession was set up through a Request for Proposals (RfP) for the design, build and operation of the Campus Hub, and not through a Request for Quotation (RfQ). Consequently, the UM classified most of the sustainability questions related to this stage as not applicable. However, in line with the main objective of this exercise, that is, to assess the level of sustainability in the practices adopted by the UM during the entire life cycle of this Project, the RfP and supporting documentation were deemed to be equivalent to a tender for the purpose of this exercise. With regard to the evaluation of the only bid received by the UM, it is to be noted that the RfP did not include weighting with respect to bidders' selection award criteria. Consequently, it is not clear how sustainability related criteria could have concretely influenced the award of the contract, as suggested by the Sustainability Checklist.

iii. *Construction:*

- Regarding the setting up of a monitoring system for the RfP did not foresee a post-occupancy evaluation. This would have provided the contractor with an incentive to ensure that construction performs as planned and to get useful feedback from the users of the infrastructure. Additionally, a post-occupancy evaluation would have facilitated the UM's monitoring function of this project, since it would have provided key performance indicators against which to assess the projects' outcomes.

iv. *Maintenance and operation:*

- Similar to the other capital project, the UM has not yet assessed in detail the environmental and social impacts that are likely to be generated during the maintenance and operation phases of this Project. These include the Project's contribution to climate change mitigation and adaptation, the transition to a circular economy, as well as to the protection and restoration of biodiversity and ecosystems. Since operations at the Campus Hub are still at an early stage of the 60-year concession period, the opportunity also exists to assess the social impacts in greater detail, analysing aspects like employment opportunities as well as improved diversity policies and social inclusion.

v. *End-of-life:*

- The UM contended that '*At the end of the Emphyteutical period, Article 14 of the General Obligations Agreement requires the operator to return the property in the same condition as at the commencement of the operational period*'. This audit, however, has revealed that the University is not yet in possession of an end-of-life strategy that would not only be useful to assess opportunities for disassembly, reuse and recycling but also to ensure business continuity vis-à-vis the provision of the services provided at the Campus Hub once its life span has been exhausted. This does not entail that the University drafts a detailed plan but a strategy highlighting the main elements to consider the sustainable elements.

4.8. The transferring of University's project risk to the contractor implies a pre-tax net present value of up to €11.6 million

4.8.1. One of the main aims of the Campus Hub concession related to the transferring of project risks to the contractor for a period of sixty years, following which the project infrastructure is returned to the UM in a good condition – subject to normal fair wear and tear. This implies that the University was to receive a fully functioning infrastructure that is available for immediate use. In return, the UM provided 8,781 square metres of land for the receipt of an annual ground rent of €150,000, increasing annually by a specified escalation formula.

4.8.2. In such a material project, risks are various and, as can be expected, there would be mitigating costs involved. If the UM were to develop the Campus Hub project directly, then the University would have had to mitigate risks related to:

- i. raising capital
- ii. securing immediate and future cash flows
- iii. dealing with inflation risks
- iv. engaging expertise in the designing, building and operating of the project
- v. ensuring that the project infrastructure remains in good condition
- vi. engaging or transferring resources to manage and monitor a project which deviates from the UM's core function of providing academic studies yet remains critical to the provision of complimentary services on campus
- vii. dealing with force majeure circumstances often resulting in increasing costs and delays
- viii. managing external relationships with lessees of retail and commercial outlets operating at the Campus Hub
- ix. the extremely high gearing which renders the operation vulnerable to interest fluctuations
- x. the resulting cash flow problems, particularly in the initial years of the project, due to financing costs and loan repayments
- xi. the losing of control of the property and its use in the event of default by the UM

4.8.3. The above list of risks is not exhaustive. Nonetheless, through assuming full project responsibility, the UM would have expected to benefit from any resultant profits following the mitigation and management of all project risks and challenges.

4.8.4. On the other hand, the UM could transfer most project risks through a concession, which is the route that the University opted for. Through this option, the UM would still be in a position to generate some revenues from the project but would forfeit the profits generated from the project – which can be considered as the value of transferring the UM project risks through the concession.

4.8.5. This Section discusses the pros and cons of both options, that is, if the UM assumes full responsibility for designing, building and operating the Campus Hub project or transferring most project risks through a concession. This evaluation considers and compares project-related cash flows over a 60-year period with respect to both options.

4.8.6. Some limitations to this exercise exist. Future cash-flow projections consider a number of assumptions. NAO based these assumptions on sources derived by the University itself or declared in the contractor's RfP bid. Examples in this regard relate to the occupancy levels within the Campus Hub residence, the leasing of commercial outlets and the redemption of preference shares in 2030. Nonetheless, all assumptions considered by the NAO in this exercise embrace the prudence concept in favour of the University. Whenever possible, the NAO confirmed its approach regarding the assumptions considered through discussions with the UM as well as the Office's engaged consultants. In the latter case, the scope of these discussions also included projections regarding future commercial leasing rates as well as maintenance and refurbishment costs. Through the residual approach, the NAO also determined the reasonableness of the ground rent received by the University.

Option 1 – The UM assumes full responsibility for the Campus Hub project

- 4.8.7. Documentation received by the NAO and discussions with the UM showed that following a presentation on the project, on 17 April 2015, the Rector explained to the University Council that the University would have invested directly in this project if it had the finance, but the next best option is to have a Concession. The Council agreed that the University drafts and issues a Request for Proposals for a Concession in consultation with the Ministry for Education and Employment and the Privatisation Unit.
- 4.8.8. The UM stated that the Ministry for Finance was not in a position to allocate public funds towards this project since if the UM is to proceed with carrying the project itself this would impact the Government's fiscal balance. Moreover, the University's financial statements as well as the Financial Tender Evaluation Report show that it did not have the reserves available to invest in the Campus Hub project. At the time, based on workings carried out during the tender evaluation process in 2016, the investment required was estimated to be €24.2 million and which could potentially increase even further.
- 4.8.9. To an extent, this confirms the Council's position that the UM would not be able to invest directly in this project since it could not raise the required capital. The UM also contended that it sought to acquire the required capital through the Malta Development Bank and through other international avenues. Pursuit of this option only stopped once the Ministry for Finance advised that it would not consent such borrowing. The UM utilised the information and workings to draw up the UM option hypothetical scenario.
- 4.8.10. Consequently, any financial evaluation of Option 1, where the UM would be investing directly in the project and assuming full responsibility for all its aspects, would only be academic since Government policy precluded the UM from increasing its debt burden. Nonetheless, the financial evaluation of such an option provides comparative analysis opportunities with Option 2 – the concession option, as well as determining the University's foregone investment opportunities.

Option 2 – The UM transfers risks and responsibilities through a design, build and operate concession

- 4.8.11. Following the financial constraints and Government direction about raising the capital to invest, in practice, the UM could only reasonably consider the concession option. Through this option, the UM would provide the land in return for an annual ground rent. Moreover, revenues due to the UM through this concession emanate from various sources of commissions (such as through accommodation rentals of the UM's referred users or through leasing of commercial space within the Campus Hub).

4.8.12. Through this option, the UM would be transferring most of the project risks to the contractor. Within this context, the NAO sought to determine the value of transferring project risk through the concession.

The UM's initial financial evaluations show that there were marginal differences between the University investing and carrying out the project directly or through a concession

4.8.13. Following the receipt of the single bid through the RfP in 2016 the UM carried out a financial evaluation whereby it assessed the extent to which the University would benefit through investing directly and assuming full responsibility for the project or else opt to implement the project through a concession.

4.8.14. These evaluations provided an important overview of the financial and economic implications of the project under both circumstances (Options 1 and 2). Within this context, the NAO verified these workings, which entailed sourcing financial and economic information which was prevailing at the time. The NAO verification elicited some differences in the extent to which it would be viable for the University to assume full responsibility for the project over a 60-year period. In addition, the NAO also sought to determine whether the option chosen remained the most financially sustainable avenue by utilising 2022 information within the project appraisal model adopted.

4.8.15. The project appraisal modelling adopted by the UM and subsequently by the NAO for verification purposes considered cash inflows and outflows over a 60-year period. The UM workings considered the time value of money through a discount rate of eight per cent. This discount rate was also acknowledged by and utilised by the NAO as it represented the opportunity cost of investing capital in other business ventures.

4.8.16. The result of this approach expressed the project's net present value over its lifetime. A negative value implies the project's non-financial sustainability. Conversely, a positive NPV shows that the project will result in a profit over the 60-year period under consideration. The difference between the options represented the value of risk-bearing or transferring in the event that the UM would opt to invest directly or implement the project through a concession respectively. While from a purely financial perspective a higher NPV between one option and another is considered more viable, such a criterion, however, does not necessarily imply a conclusive decision when one considers other non-financial elements such as deviation from the entity's core function and the entity's risk appetite over a significantly long period. Table 17 shows the results of the UM's initial workings, that is, as indicated by the Financial Tender Evaluation Report.

Table 17: Difference between Campus Hub’s Financial Tender Evaluation Report and NAO workings based on 2016 realities (pre-taxation)

	NPV (€)	NPV (€)	NPV (€)
	The UM assumes full investment and implementation responsibility	Transferring of Project Risk through a Concession	Difference
	Option 1	Option 2	
Financial Tender Evaluation Report (2016)	11,390,000	6,960,000	4,430,000
NAO Workings based on 2016 realities	16,534,439	4,887,997	11,646,442
Difference			7,216,442

4.8.17. Table 17 consistently shows agreement through positive NPVs between the UM’s Financial Tender Evaluation Report compiled in 2016 and the NAO’s verification workings based on information available in the same year.

4.8.18. In practice, the consideration of option 1 relates to exercise completeness and thus, it is to be viewed purely from an academic perspective since the UM was not given Ministry of Finance approval to raise the required investment capital through loans. Nonetheless, this exercise provides useful information regarding project sustainability as well as presents the opportunity to assess the reasonableness of the resultant value of project risk transfer through the concession approach.

4.8.19. Despite the consistent positive NPVs shown in Table 17, the final result in both options is subject to varying degrees of differences in the financial values. These resulted in an overall NPV difference of over €7.2 million between the UM’s initial financial workings carried out in 2016 and the workings undertaken by this Office which were based on the assumptions, cost projections and realities of the same year (2016). The €7.2 million variance between the two calculations was mainly attributable to the following factors:

- i. The concession option evaluation (Option 2) did not consider the total investment costs related to the total amount of €22 million by the contractor. The UM’s calculations underestimated this amount by €10 million as the financial appraisal only considered financing costs for a loan amounting to €12 million. The NAO’s reasoning as to why the total investment cost is to be wholly considered is that the initial capital outlay would either be subject to financing costs or the investor’s underlying opportunity costs. Moreover, the exclusion of this €10 million will have an effect on the Concessionaire’s profit which in turn will affect UM’s entitlement of 2.4 per cent profit share.
- ii. Under both options (UM and concession option), the UM’s Financial Tender Evaluation Report did not take into consideration the estimated revenue generated from the car park. The NAO contends that at the time of undertaking these workings, the UM could have

reasonably assumed that at 80 per cent occupancy the car park would have generated an income estimated at €266,304 per annum. Such income would have featured in both options. In the event that the UM executed the project directly, this amount would have fully featured as cash inflows. On the other hand, revenue generated by the car park would affect the concessionaire's profits, a percentage of which is due to the UM.

- iii. According to the NAO's research, the UM's financial workings did not reflect the 2016 leasing market rates generated through commercial outlets. The UM countered that its own procurement policy would have inhibited it from obtaining the most favourable rates. Given that the procurement process differs from that adopted in the private sector, for financial evaluation purposes, the UM noted that it considered it reasonable to assume that the rates obtained by the University would be less favourable.
- iv. The envisaged area which was projected for commercial outlets was not fully taken into consideration for the scope of the UM's financial evaluation.
- v. Although normally not considered in such evaluation exercises since it is not a cash inflow or outflow, the UM considered asset's depreciation throughout the lifetime of the concession period. This element was excluded in NAO workings.
- vi. The UM underestimated the value of maintenance costs. This situation materialises as the general annual maintenance costs average out at one percent of the market value of the premises throughout its life cycle.
- vii. Similarly to the above point, the UM workings underestimated major refurbishment works which would have needed to be undertaken periodically – irrespective of whether the UM was to assume full responsibility of project implementation or opt for the concession model. In projects such as this one, refurbishment costs amount to 66 per cent of the total cost of construction and ancillary works.

4.8.20. While the above workings can be termed as purely academic since in practice the UM could only consider the concession option, this exercise reemphasised the need of undertaking such workings as accurately as possible and at the earliest opportunity. This approach would be conducive to the project owner (in this case, the UM) having more timely, accurate and relevant information, which would enable it to better identify project risk and be in a better position to negotiate with third parties.

Changes in market circumstances implied that pre-taxation project financial evaluations showed only marginal difference between the two options

4.8.21. The NAO also sought to determine the extent to which the decision to opt for a concession model remained viable in light of changing economic circumstances brought about by global events since the issue of the RFP in 2016. Moreover, the project also experienced major changes,

such as the areas available for commercial leasing and the increase in the amount of space that the UM was to lease (back) from the concessionaire. The UM’s contention on this matter is presented in paragraph 4.4.27.

4.8.22. Within this context the NAO compared options 1 and 2 but the financial modelling entailed that information sourced would pertain to 2022. This would provide a more realistic assessment relating to the financial impact of the project. It is acknowledged that such an exercise and its ensuing conclusions are being undertaken with the benefit of hindsight. Nonetheless, this exercise would shed light on the impact of some risks which could be considered in future projects of this magnitude. Table 18 refers.

Table 18: Impact on project options in light of global economic circumstances and major project changes (pre-taxation)

	NPV (€)	NPV (€)	NPV (€)
	The UM assumes full investment and implementation responsibility	Transferring of Project Risk through a Concession	Difference
	Option 1	Option 2	
NAO Workings based on 2022 realities	2,751,615	2,658,351	93,264

4.8.23. The results of workings undertaken, which were based on NAO’s financial modelling and assumptions, showed that when considering the impacts of recent economic events, namely the COVID-19 pandemic and Ukraine war as well as major changes to the Campus Hub over the project’s 60-year lifetime (as outlined in Section 4.4. of this Chapter), only a marginal difference in the respective NPV exists. This implies that the concession option (option 2) is also seen to satisfy financial criteria in the current economic climate and when project changes are taken into consideration.

Post-taxation financial evaluations indicate the viability of the concession option

4.8.24. The NAO extended its modelling to consider the financial implications of the Campus Hub project after taxation. Two key issues come to the forefront.

4.8.25. Firstly, such a consideration, now considers the financial viability of the project from Government’s point of view rather than from a UM perspective. This arises since Government would be receiving corporate tax from the concessionaire at the current rate of 35 per cent. For the purpose of this exercise, it is being assumed that the 35 per cent rate would be a constant throughout the project lifecycle. It is also to be pointed out that in accordance with legislative provisions (Ch 123 Art 12.1a, Government would not be due any corporate tax if the UM was to invest and operate the project directly.

4.8.26. Secondly, the area being utilised for the Campus Hub project has planning restrictions which limit its use to medical and educational purposes. This further supports the notion that any financial modelling is to consider Government's perspective since it is more than likely that the provision of such services on this land would be Government provided (through the UM and/or the MDH). Moreover, if such services are provided through the private sector, Government would also be entitled to corporate taxation.

4.8.27. Table 19 shows that when taxation is taken into consideration, the financial viability of the Campus Hub project becomes more pronounced through the Concession option. Table 19 refers.

Table 19: Campus Hub's Value for Money position (post-taxation)

	NPV (€)	NPV (€)	NPV (€)
	The UM assumes full investment and implementation responsibility	Transferring of Project Risk through a Concession	Difference
	Option 1	Option 2	
NAO Workings based on 2022 realities	2,751,615	18,224,773	-15,473,158

4.8.28. Table 19 clearly highlights the favourable financial stance provided by the Concession option. Over the project's lifecycle a NPV difference of €15.4 million materialises in favour of the project being executed through a concession.

4.9. Conclusion

4.9.1. There is no doubt that the Campus Hub project will contribute towards attaining the UM's strategic objectives and ensure a more fulfilling student life. To varying degrees, the financial sustainability of this project depends on revenues generated through the leasing of commercial outlets from the concessionaire's point of view. From a university point of view, the success of this project can be gauged by the way that the Campus Hub enables the UM to grow by broadening its academic services and attracting more local and international students. Given the current status of the project, these ambitions are on track to being realised.

4.9.2. This Chapter discussed in some detail the UM's transfer of project risk through a concession. When financial considerations are considered after corporate tax has been paid to Government, as at the time of drafting this Report, the concession arrangement made business sense, particularly in a scenario where the UM was restricted to raise capital for investing in this project.

4.9.3. Nonetheless, this Chapter has identified various factors which, if invoked at the early stages of the project life cycle, could have made the concession deal more beneficial for the UM. In part, these elements could have been resolved through better planning, identification of needs, wider competition as well as broader communication and coordination with stakeholders.

Chapter 5 | Conclusions and Recommendations

5.1. Introduction

- 5.1.1. This performance audit focused on two major University of Malta (UM) capital projects: the Sustainable Living Complex (SLC) and the Campus Hub. Although very diverse in nature, objectives, financing and implementing model, they both sought to embrace the UM's strategic direction by broadening the delivery of academic services, attracting and diversifying more its student base, increasingly engaging in research and development as well as facilitating life on Campus. At the time of drafting this Report, the cost of these projects amounted to €48 million and €46 million respectively.
- 5.1.2. The NAO's focus on these two projects is multifaceted. Their magnitude provides a reliable insight in the UM's management of capital projects. The diverse yet complimentary nature of these projects provided the basis for comparing two implementation models. Moreover, the more stringent governance-oriented processes required for European Union (EU) co-financed projects offered benchmarking opportunities.
- 5.1.3. This final Chapter of the performance audit Report seeks to analyse the findings presented in the previous Chapters in terms of this review's three main objectives. These relate to the extent to which the UM's capital projects are attaining or projected to realise strategic goals, the degree to which sound project management was in place, and, the level to which the project fulfils value for money criteria.

5.2. Mechanisms are in place to ascertain that the UM's capital projects embrace and deliver strategic objectives

- 5.2.1. The UM's organisational framework encompasses various aspects which monitor the extent to which strategic objectives are being attained, including through capital projects. The review of the two sampled projects revealed that the implementation and realisation of strategic objectives is monitored at various levels. The Office of the Pro-Rector for strategic planning, inter alia, has an oversight function on the implementation of strategic objectives and measures. At a micro-level, the UM's appointed infrastructure Committee has the mandate -to oversee the implementation of capital projects in accordance with project objectives. The UM's internal audit unit, at its own discretion, also has the authority of review any aspect of capital projects. To varying degrees, this framework ascertained that both the SLC and the Campus Hub projects embraced strategic objectives and measures.
- 5.2.2. From the SLC's viewpoint, project outputs and anticipated outcomes (as verified by the NAO) attest to this assertion. This claim considers that the SLC design embraces sustainability criteria

while promoting research and innovation. Additionally, the SLC will accommodate and facilitate research and development through its various features.

5.2.3. Similarly, the Campus Hub project fulfils strategic objectives by embracing technical criteria related to sustainable buildings through its design comprising bubble decks as well as energy and water efficiency. This project also ticks a range of strategic objectives relating to the UM's ambitions of growth. Through the Campus Hub project, the UM will be able to attract more local and international students by housing lecture rooms to broaden its academic services to an ever-increasing student population. Moreover, the facilities therein are seen to assist student life on Campus through various amenities such as retail outlets and accommodation units.

5.3. Needs assessments, planning and project management positively influenced in EU co-financed projects

5.3.1. The SLC and Campus Hub projects were financed through different models. The former was an EU co-financed model while the latter was realised through a concession partnership between the UM and a third party. The co-financing arrangement resulted in the SLC project receiving a maximum of €30 million, which constitute around 63 per cent of the estimated capital outlay. On the other hand, the UM's input in the concession model was University-owned land while the concessionaire assumed project responsibility for designing, building and operating the Campus Hub.

5.3.2. The SLC project complied to EU requirements as it was supported by a sound business case which not only addressed financial considerations but also the UM's current and future needs. While some delays resulted in postponing the relocation of a number of University faculties and institutes to this new and multi-disciplinary environment, as well as the setting up of purchased equipment in other areas, these are considered as acceptable for a University project of this magnitude, particularly in view of the inevitable adversities emerging during the demolition and construction works. More importantly, the UM and the Planning and Priorities Coordination Division (PPCD) contend that such delays should not result in the loss of EU funds. Nonetheless, these delays did have some impact on the SLC project whereby the project team opted to deviate from aspects of the original project design to minimise the effect of project prolonging. In turn, such deviations implied a missed opportunity to better embrace the principles of the circular economy as the UM forfeited the opportunity to extract the stone from the SLC site, which was originally intended to be utilised for structural as well as facade-cladding purposes. The opportunity also exists for the University and other public entities to increasingly consider embracing project life cycle sustainability criteria, such as those being developed and in the process of being adopted by the European Commission.

5.3.3. This performance audit considered the processes to implement capital projects in European Union (EU) co-financing arrangement as advocating best-practices. To this end, the NAO adopted these practices as its criteria against which to benchmark the planning and project management approaches utilised in the Campus Hub project. The following refers:

- i. Probably, because of the passage of time, the UM was not able to furnish the NAO with initial project feasibility workings. Nonetheless, the UM embarked on a project financial feasibility appraisal on the receipt of the Request for Proposals (RfP). Despite some variations, the UM's workings generally agreed with the NAO's evaluations.
- ii. The UM issued a RfP directly rather than through the Department of Contracts (DoC). Whilst this approach is not irregular in any way, best practices dictate that the UM would have exploited competitive advantages further had it opted to utilise the tendering expertise available at the DoC. Moreover, the DoC's expertise could have extended to the drafting of agreements where it could have contributed to ensure that the UM's and its stakeholders' interests are better safeguarded for the 60-year duration of the concession.
- iii. The UM/Government did not crystallise its needs at an early stage or at least prior to the issuing of the RfP. There were three major examples in this regard. Firstly, the issue of the potential housing of the Medical School within Campus Hub. Secondly, the amount of space that the UM was to lease at the Campus Hub and thirdly the car park issue which recently led to student protests. To varying degrees, these three instances, imply coordination and communication issues with prime stakeholders. The consequence of not crystallising needs at the early stages of planning result in extra costs / use of public funds for Government. Moreover, realising new project needs following the issue of a tender or RfP creates a situation of unfair competition as potential bidders may have found the latest terms and conditions advantageous and submitted their bids.

5.4. Opportunities existed to further exploit value for money considerations, particularly at the Campus Hub

- 5.4.1. This Report's third objective was concerned with the two projects' value for money. This performance audit analysed value for money considerations through the Programme Logic Model – presented in detail within the Key Facts at the outset of this Report (pages 6 and 7 refer). To this end, both projects were assessed against a range of effectiveness, efficiency and economy related criteria. As noted earlier, the NAO's evaluation is subject to a degree of limitations brought about since both projects are not yet fully complete. This was mitigated through evaluations from NAO consultants.
- 5.4.2. The SLC project has generally fulfilled the UM's current, medium and long-term strategic objectives. This EU co-financed project has also fulfilled other effectiveness criteria since its architectural and structural designs and related measures remain on track. In turn, the building itself will provide and accommodate research and development opportunities. From an efficiency point of view, the SLC experienced delays as discussed in paragraph 5.3.2. of this concluding Chapter.
- 5.4.3. The SLC also fulfilled economy criteria. The SLC's development costs are generally in line with the prevailing market prices within the construction industry. Although the SLC has generally

managed to retain its costs within budget, this could be impacted negatively in case of severe delays given the increasing costs of materials and works in recent years.

5.4.4. The Campus Hub proved its effectiveness on various levels. It generally embraced the UM's strategic objectives, which namely related to supporting students' life on campus and the UM's ambitions of expansion. Nonetheless, the opportunity existed for effectiveness levels to be more pronounced through more UM stakeholder-friendly contractual clauses. A case in point relates to the location of the Medical School whereby unless a decision is reached, it is the concessionaire who has the upper hand in regarding the ultimate use of the block in question. Other omitted contractual clauses relate to the use and charges at the Campus Hub's car park.

5.4.5. Efficiency-wise, the Campus Hub experienced delays of at least three years, which to varying degrees influenced the UM's budgetary considerations and increased costs to the Contractor. This was mainly the result of planning permit issues. The UM's planning issues also resulted in the shifting of the project's objectives. As discussed in Section 4.3., the opportunity existed for better coordination and broader communications between the UM and the major stakeholders, that is, students, academic staff, the Ministry for Education and neighbouring Mater Dei Hospital. In some cases, the diverse stakeholders' interests were not fully addressed and remain outstanding to date.

5.4.6. When considering the revenue that Government will derive through corporate taxation, the Campus Hub project fulfils financial and economic criteria. Nevertheless, the question remains as to whether the UM could have made a better deal through the 60-year concession which transferred the project risks to the Contractor. This statement considers the circumstances where competition for the concession bids was not thrown wide open by issuing a call for tenders through the Department of Contracts. Additionally, after considering the pre-taxation time value of money, the UM is estimated to generate €2.7 million through cash inflows over the project's lifetime. Other considerations which may affect the project's value for money relate to major decisions vis-à-vis Medical School. Such a decision opens again negotiations between the concession signatories, but this time in an environment of rising costs and widespread economic uncertainties.

5.5. Concluding Remarks

5.5.1. This performance audit has shown that the SLC and the Campus Hub projects have the potential to enrich University life. This review has also confirmed that the UM's administrative framework has the appropriate capacity to implement capital projects of significant magnitude. Yet their impact in financial, economic and social terms could have increased through better communication, coordination and planning.

5.5.2. While the SLC embraced and adhered to the processes advocated by EU co-financing regulations, the Campus Hub entailed significantly more complexities through the concession model adopted. This performance audit acknowledges the benefits of PPPs and concessions. Yet on a

government level it is abundantly clear that more needs to be done to ensure that such projects do not fulfil effectiveness criteria at any price. Rather, the value of such partnerships should be in reaching an equilibrium between the signatories of such agreements regarding the respective benefits, risks and obligations.

5.6. Recommendations

5.6.1. In view of the findings and conclusions emanating from this performance audit, the National Audit Office (NAO) is proposing the following recommendations:

Strategic framework

- i. The UM is to link specific capital projects to the measures listed in the Strategic Plan. This would facilitate the monitoring of the implementation of UM strategies by its stakeholders.
- ii. Additionally, the University is to develop targets relating to the measures listed in the Strategic Plan. This would enable the different departments within UM to measure progress in a quantitative manner.

General

- iii. Prior to embarking on a capital project, the UM is to:
 - carry out a detailed assessment of the risks related to each capital project as well as the potential impact on UM's operations of alternative options. Ideally, a detailed business case and risk analysis should be undertaken at the conception stage of each capital project and is continuously updated to reflect new developments. This assessment should facilitate negotiations between the UM and third parties to ensure an all-round fair deal.
 - conduct out widespread consultation between the major stakeholders. This level of consultation is considered an opportunity for major stakeholders to contribute to the development of the project by presenting their needs and their feedback at a very early stage. This process should enhance the sustainability, profitability, as well as the eventual outputs and impacts of the capital project.
 - formally seek the guidance and assistance of the Department of Contracts (DoC). Through such an approach, the UM will benefit from the DoC's expertise in the formulation of calls for bids and agreements with third parties.

- iv. All calls for bids issued by the UM are to include the following:
- clauses related to the right of appeal. This clause safeguards bidders' interest and ensures that a fair tendering process ensues.
 - the minimum amount payable with respect to commissions receivable. This will ensure that UM's interests are appropriately safeguarded throughout the project's life cycle.
 - the minimum ground rent payable rather than invite bidders to establish the level of ground rent due for the leasing of University-owned land. By establishing the minimum ground rent, the UM would be guaranteeing a fair return, based on the prevailing market value of land.
- v. Contractual agreements governing the development and operation of capital projects through partnership agreements with the private sector are to ensure the:
- better definitions of deliverables through clear terms, conditions, specifications and Key Performance Indicators for each service component. A case in point relates to the level of maintenance and refurbishment expected from contractors throughout the lifetime of concessions.
 - appropriate clawback provisions are in place and cover the project's lifetime. This will contribute to a fairer distribution of benefits between the parties.
- vi. Future capital projects are to increasingly consider utilising a sustainability checklist self-assessment tool or similar techniques. Such tools ensure that various sustainability aspects are duly taken into consideration at different stages of a capital project life cycle.

Sustainable Living Complex

- vii. The University is to step up its efforts to dove-tail the remaining works at the SLC so as to ascertain sound project management and avoid additional delays. Prolonging the delivery of this Project would have an impact on those Faculties and Institutes that shall be relocating to the SLC premises, as well as the opportunity cost associated with the liberated space. Moreover, additional delays in completing such a high-quality environment for interdisciplinary research will also likely have an impact on the costs and potentially also on the EU funding arrangement in place.

- viii. The UM is encouraged to, as far as possible, make optimal use of the resources and opportunities at its disposal, once the SLC is fully operational. Following the identification of resource-efficient and cost-effective solutions for more sustainable living, the sharing of such solutions with the local building industry is key for maximizing the impacts and benefits to be reaped through this capital project. The SLC experience can be broadened to encompass all capital projects undertaken by the UM. This could be achieved by the adoption of sustainable practices, such as through a circular economy that facilitates the reuse and recycling of the various building components. Such an approach is expected to contribute positively towards increasing the stock of sustainable infrastructure, coupled with the associated environmental and socio-economic benefits.

Campus Hub

- ix. The UM and the Ministry for Health are encouraged to engage in discussions regarding the Medical School at the earliest. This will enable stakeholders to make optimal use of the remaining area in question. To this end, it is pertinent to note that prolonging this issue will potentially imply higher costs in line with the general trend being experienced within the construction industry.
- x. The UM is to trump on the monitoring rights emanating from the Campus Hub's contractual framework, to ensure proper upkeep and adequate service delivery. This approach would ensure that, at the end of the concession period, the Contractor returns the Campus Hub development to the University in the best condition possible to enable its continued operation in the longer term. Moreover, systematic monitoring by the UM would also safeguard its revenue during the concession period.

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