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List of Acronyms use within this report:

1. **CIPD** - Chartered Institute of Personnel and Development
2. **CRF** - Climate Resilience Fund
3. **ECC** - Engineering and Construction Contract
4. **ECSC** - Engineering and Construction Short Contract
5. **ECS** - Engineering and Construction Subcontract
6. **FC** - Framework Contract
7. **FIDIC** - International Federation of Consulting Engineers
8. **HEPI** - Higher Education Policy Institute
9. **HRH** – His / Her Royal Highness
10. **IMF** - International Monetary Fund
11. **IPD** - Integrated Project Delivery
12. **JCT** - Joint Contracts Tribunal
13. **NEC** - New Engineering Contract
14. **NBS** - National Building Specification
15. **PSC** - Professional Services Contract
16. **RIBA** - Royal Institute of British Architects
17. **SC** - Supply Contract
18. **SSC** - Short Supply Contract
19. **TSC** - Term Service Contract
20. **UCAS** - Universities and Colleges Admissions Service
21. **UWTSD** - University of Wales Trinity Saint David

1.0 Executive Summary

The University of Wales Trinity Saint David (UWTSD) faces serious operational and financial challenges in today's complex global climate. This is due to the COVID-19 pandemic, Brexit, and ongoing global tensions with the ongoing conflict in Ukraine. This report provides a focused, research analysis on these challenges, targeting UWTSD's Lampeter campus. It proposes strategic measures to strengthen resilience and sustainability within this unusual academic context. Which fall inline with the universities Corporate Strategies and Polices (Appendix 4)

Recent research, including a 2023 study by the Higher Education Policy Institute (HEPI), reveals a sharp increase in operational costs for UK universities, accountable to economic disturbances from Brexit. Additionally, the lasting impact of COVID-19 has needed substantial revisions in how education is delivered, as extensively examined in the (United Nations Department of Economic and Social Affairs, 2022) study on the pandemic effects in higher education.

The detailed SWOT analysis and risk assessment is tailored to the Lampeter campus, addressing key concerns including financial, technological, environmental, social, and demographic, project specific and health risks. These evaluations, detailed in the Risk Register (Appendix 2), aim to pinpoint critical risks, but also propose actionable mitigation strategies showing potential opportunities for campus improvements.

The final part of the report is the recommended procurement strategies and contractual considerations for upgrading the Dylan Thomas building's energy efficiency. The project is critical for boosting the building's sustainability and aligning with UWTSD's environmental conservation goals (Appendix 4). It also aims to reduce the environmental impact and the operational costs, positioning UWTSD as a leader in sustainable practices within the educational sector in Wales.

Using analytical tools, such as the SWOT analysis (Appendix 1), the risk assessment matrices (Appendix 2) and the procurement strategies, provide informed recommendations. These tools are adapted to meet the apparent needs of the Lampeter campus and the Dylan Thomas building, reflecting innovative sustainable construction and risk management practices.

Designed as a strategic guide, this report aims to aid UWTSD in effectively navigating current challenges. It provides comprehensive strategies and insights to enhance the campus's resilience, eco-friendliness, and efficiency, ensuring the institution's ongoing success and leadership in sustainable higher education.

2.0 Introduction

2.1 Overview of UWTSD and Lampeter Campus

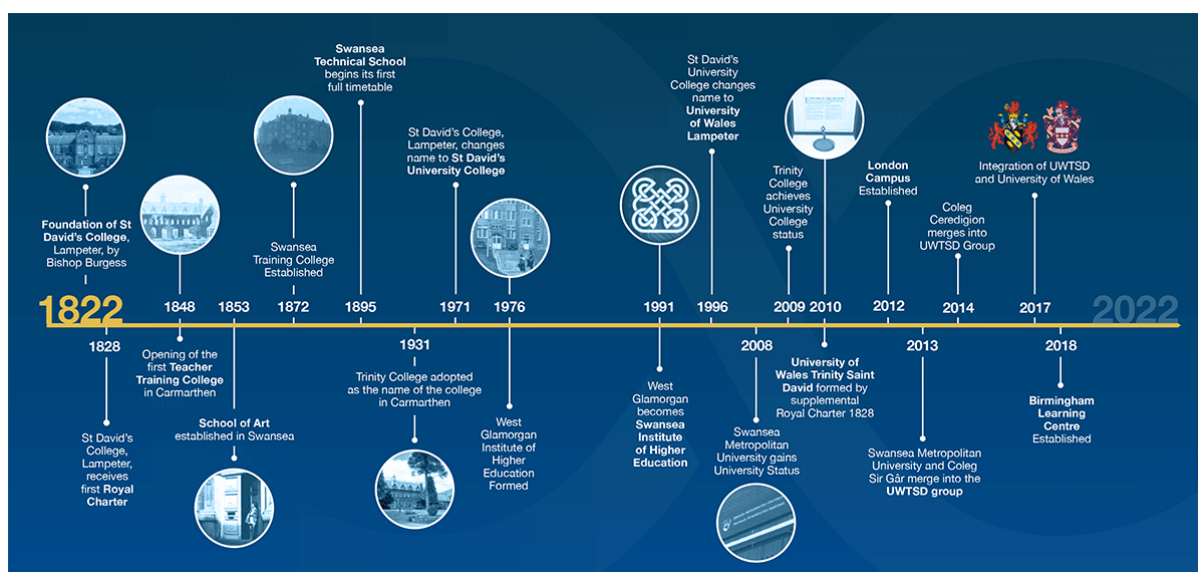


Figure 1: History of UWTSD

UWTSD (2023)

The UWTSD established on November 18, 2010, through the amalgamation of the University of Wales Lampeter and Trinity University College in Carmarthen under the historic Royal Charter of Lampeter from 1828. On August 1, 2013, Swansea Metropolitan University joined UWTSD, further extending its heritage. The university's Royal Charter is the most ancient in Wales and the second oldest in England and Wales, following only Oxford and Cambridge. In 2011, HRH the Prince of Wales became the Royal Patron of UWTSD.

Lampeter Campus

Originally founded in 1822 as St David's College, the campus was designed to provide liberal education primarily for clergy members. Over the years, it expanded its academic offerings and gained recognition for its programs in English, Archaeology, Chinese, Classics, History, and Theology, among others. It also introduced new disciplines such as Philosophy, Anthropology, Ancient Civilisations, and Creative Writing. Now part of UWTSD, the campus continues to flourish, drawing a diverse international student body annually. The campus has a rich history marked by its key milestones:

- 1822: Establishment of St David's College by Bishop Burgess.
- 1827: Admission of the inaugural cohort of students on St David's Day.
- 1828: Granting of its first charter.
- 1960: Receipt of its initial funding from the University Grants Committee.
- 1971: Integration into the University of Wales.
- 1971: Renaming to St David's University College.
- 1996: Transition to the University of Wales Lampeter.
- 2010: Merger leading to the creation of the University of Wales Trinity Saint David.

(UWTSD 2023)

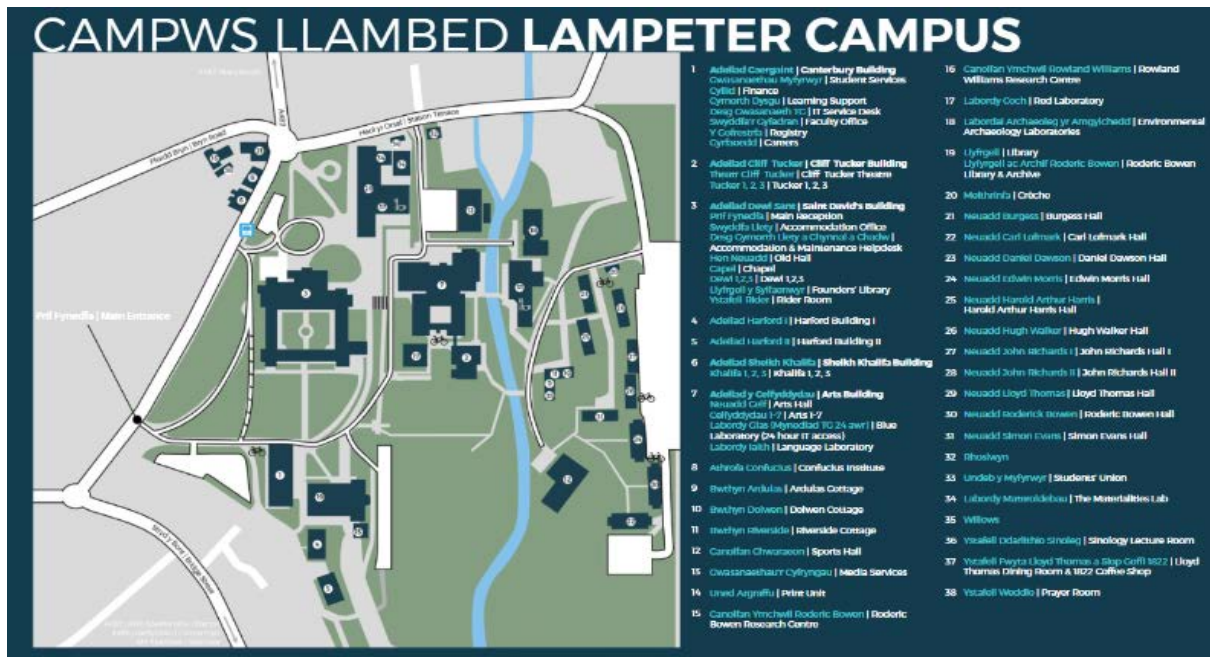


Figure 2: Map of Lampeter campus.

(UWTSD 2023)



Figure 3: Aerial view of Lampeter campus.

(Driver, 2004)

List of Building on Lampeter Campus Site –



St David's Building 1835



St David's Building current



The original Canterbury Building (1887–1971)



The second Canterbury Building (1973–2012)



The Learning Resources Centre / Main Library



The Roderic Bowen Library & Archives



Arts Building



Cliff Tucker Building



Sheikh Khalifa Building



Bishop Burgess Hall



The Students' Union building (Ty Ceredig)



The Extension Bar / Nightclub

Figure 4: List of Buildings on Lampeter Campus Site

(Wikipedia, 2024)

2.2 Purpose and Scope of the Report

UWTSD operates in a complex global climate, continuously influenced by the COVID-19 pandemic, Brexit, and geopolitical tensions. This report aims to conduct a focused, research-informed analysis of these challenges, particularly affecting the Lampeter campus. It seeks to:

- Identify and assess key operational and financial risks:

A SWOT analysis (Appendix 1) and the comprehensive risk assessments / report (Appendix 2) will detail vulnerabilities such as financial, technological, environmental, social, and demographic, project specific and health risks (See Appendices for detailed evaluations).

- Propose sustainable strategies:

Strategic measures will suggest improving resilience and sustainability, especially focusing on the energy efficiency enhancements of the Dylan Thomas building.

This study focuses on assessing the stated risks and opportunities within the context of UWTSD's Lampeter campus and does not extend to other UWTSD campuses. In addition, while the report suggests procurement strategies and contractual considerations, it does not execute or monitor these strategies but instead serves to guide decision-making.

3.0 Risk Analysis

3.1 SWOT Analysis

A comprehensive SWOT analysis, detailed in (Appendix 1) following the template in Figure 5, is a simple yet powerful tool used to identify strengths, weaknesses, opportunities, and threats related to a business or project. It helps organisations understand their capabilities and challenges, seize opportunities, and prepare for potential threats. Below is a summarised breakdown for each area, aiding in strategic planning and decision-making to enhance performance in a competitive environment.

Strengths	Weaknesses
1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
Opportunities	Threats
1. 2. 3. 4. 5.	1. 2. 3. 4. 5.

Figure 5: SWOT Analysis Template

The main advantages of a SWOT analysis are its straightforward approach, which can offer valuable insights if used correctly. However, it has its disadvantages. It does not prioritise the importance of each factor. It is often conducted without considering other business strategies and tends to focus more internally than externally and is not regularly updated. Figure 6 shows a list of the Advantages and Dis-advantages of this type of Analysis.

Aspect	Advantages	Disadvantages
Simplicity	Simple four-box framework.	Can oversimplify data used for decisions, risking insufficient analysis.
Understanding	Facilitates understanding of organisational strengths and weaknesses.	Reliance on assumptions that may later prove unfounded.
Strategic Thinking	Encourages development of strategic thinking.	Lacks detailed structure, potentially missing key elements.
Focus	Helps senior managers focus on strengths and build on opportunities.	Can lead to 'paralysis by analysis' if too much data is captured.
Proactivity	Anticipates future business threats to minimise their impact and spots opportunities to exploit them fully.	Difficulty anticipating developments due to fast pace of change.
Flexibility	Flexible approach adaptable to various contexts.	Quality internal data access can be time-consuming and politically challenging, especially in complex organisations.
Repeatability	Allows for adjustments and updates.	Needs to be repeated regularly to remain effective, requiring ongoing commitment.

Figure 6: Advantages and Dis-advantages of a SWOT Analysis

(CIPD, 2024)

Listed below is a summarised breakdown for each SWOT area, aiding in the strategic planning and decision-making to enhance decision making in a competitive environment.

Strengths

Historic Reputation and Strategic Partnerships:

UWTSD Lampeter is distinguished by its status as one of the oldest educational institutions in Wales. This long-standing heritage not only enhances its appeal among prospective students and faculty but also contributes to a robust financial foundation. The university has effectively leveraged its history to establish and maintain strategic partnerships with prominent technology firms and respected academic bodies. These collaborations enhance its research capabilities and educational offerings, further solidifying its status in the academic community.

Diverse Facilities and Marketing Potential:

Over recent years, UWTSD has made substantial investments to modernise and expand its facilities, including major renovations of the Arts Building and the Cliff Tucker buildings. These improvements have introduced state-of-the-art infrastructure that gracefully integrates with the campus's historic architecture, creating a unique blend that enhances both functionality and aesthetic appeal. This strategic blend not only boosts the campus's marketability but also increases its adaptability, enabling it to effectively respond to varying educational demands and opportunities.

Weaknesses

Brand Confusion and Funding Reliability:

The integration of distinct campuses into the singular UWTSD brand has resulted in brand dilution. This has created confusion in the marketplace, necessitating the development and implementation of enhanced marketing strategies aimed at consolidating its identity. Additionally, the university has faced challenges with funding reliability, with financial streams being unpredictable. This variability stresses the importance of developing more robust and dependable funding strategies to support its ongoing and future initiatives.

Opportunities

Media Exposure and Sustainability Initiatives:

UWTSD could significantly elevate its international profile through strategic media exposure. Participation in film and media projects, for instance, can highlight the university's unique offerings and innovative research, attracting global attention. Additionally, the university is well-positioned to lead in sustainability through its various eco-friendly projects, such as the Tir Glas initiative. This project not only promotes sustainability but also serves as a living lab, making UWTSD a pioneer in developing and implementing green technologies and practices, supported by government funding like the Climate Resilience Fund (CRF).

Threats

Brexit and Economic Volatility:

The post-Brexit era has brought about significant challenges, including a noticeable decrease in EU student enrolments. This necessitates a shift in focus towards non-EU markets and requires adjustments in admission policies to maintain a diverse student body. Additionally, the ongoing economic volatility, aggravated by factors such as the ongoing conflict in Ukraine, heightens the need for meticulous financial and operational planning. The rising cost of living and potential economic downturns further underscore the need for strategic planning to safeguard the institution's financial health and operational stability.

3.2 Identification of Risks, Potential Impact and Mitigation Strategies

In this section, I have explored the various risks that impact the Lampeter campus, spanning various critical areas. I have documented each identified risk, along with its potential impacts and strategies for mitigation, in the Risk Register (Appendix 2). This register is vital, as it provides a detailed look at each risk's characteristics and outlines how prepared we are to manage these challenges effectively.

A risk report is defined as:

“A risk report imparts information about the company's most pressing risks now. Typically, it will address critical risks, where consequences for the firm could be dire; as well as emerging risks that could cause larger trouble in the future if they are not monitored carefully.”

Kelly (2020)

3.2.1 Economic Recession and Cost of Living Crisis (Linked to Brexit and the ongoing Ukraine Conflict)

Risk Description:

The combination of Brexit and the ongoing Ukraine conflict has intensified economic pressures, manifesting in a cost-of-living crisis and potential for recession. These developments directly impact student affordability and could constrain university budgeting through increased operational costs and fluctuating funding sources.

Food and energy prices continue to drive the global inflation surge.
(percent, median inflation rate)

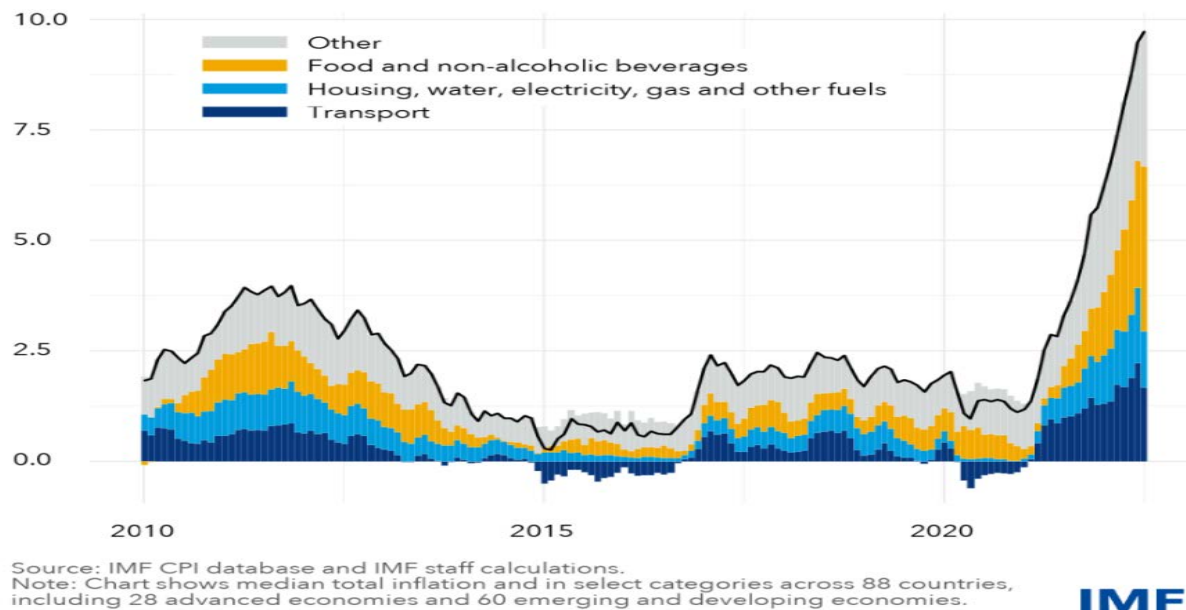


Figure 7: Food and Energy prices:

(IMF, 2022)

Potential Impact:

Declines in enrolment as students face financial barriers, alongside risks of reduced funding which may curtail university programs and services.

Mitigation Strategies:

Refer to the Risk Register (Appendix 2), specifically entries for "Difficulty securing funding" (ID 3) and "Exceeding budget due to cost volatility" (ID 4), which detail actions like diversifying funding sources and implementing stringent budget controls.

3.2.2 Socio-economic Factors

Risk Description:

Shifts in the socio-economic environment could affect the university's strategic positioning and enrolment capabilities, influenced by national economic policies, labour market conditions, and demographic shifts.

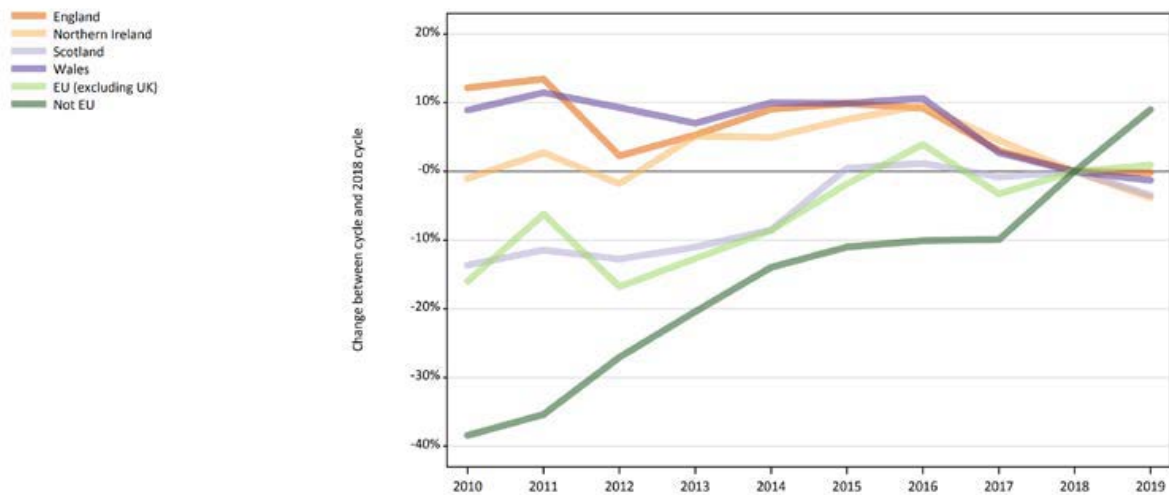


Figure 8: Applications to UK Universities

(UCAS, 2019)

Potential Impact:

Changes in the socio-economic landscape might lead to a decrease in prospective students and affect the diversity and vibrancy of the campus community.

Mitigation Strategies:

These risks could be managed as per "Challenges in hiring due to immigration regulations" (ID 11) and "Changes in student demographics affecting campus needs" (ID 19) in the Risk Register, with strategies including targeted recruitment campaigns and flexible facility management.

3.2.3 Technology Failures

Risk Description:

Dependence on technology for educational delivery and administration exposes the university to risks of system failures, data breaches, and cybersecurity threats.

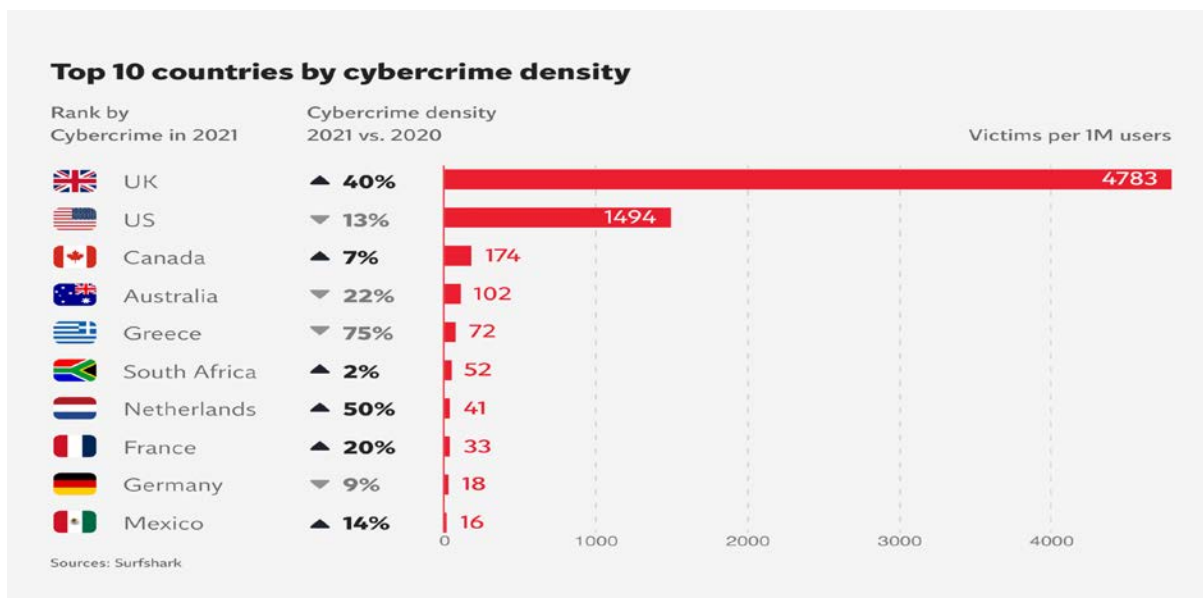


Figure 9: Top 10 countries by cybercrime.

(Independent, 2024)

Higher Education and School Districts

- The education industry is ranked last in cyber security preparedness out of 17 major industries.
- 79% universities have experienced damage to reputation and almost 74% have had to halt a valuable research project as a result of a cyber-attack.
- 27% see the current security of their data centre as 'inadequate' and in urgent need of updating.
- 85% of universities agree that more funding must be provided to IT security to protect critical research IP.

(PurpleSec, 2023)

Potential Impact:

Operational disruptions and potential data security issues could impair learning and damage the university's reputation.

Mitigation Strategies:

See "Vulnerability to cyber-attacks" (ID 13) and "Technology becoming outdated" (ID 14) in the Risk Register for implemented measures like enhanced cybersecurity protocols and continuous technology upgrades.

3.2.4 Environmental Risks

Risk Description:

Environmental concerns such as climate change pose risks through severe weather events and compliance with evolving environmental regulations.

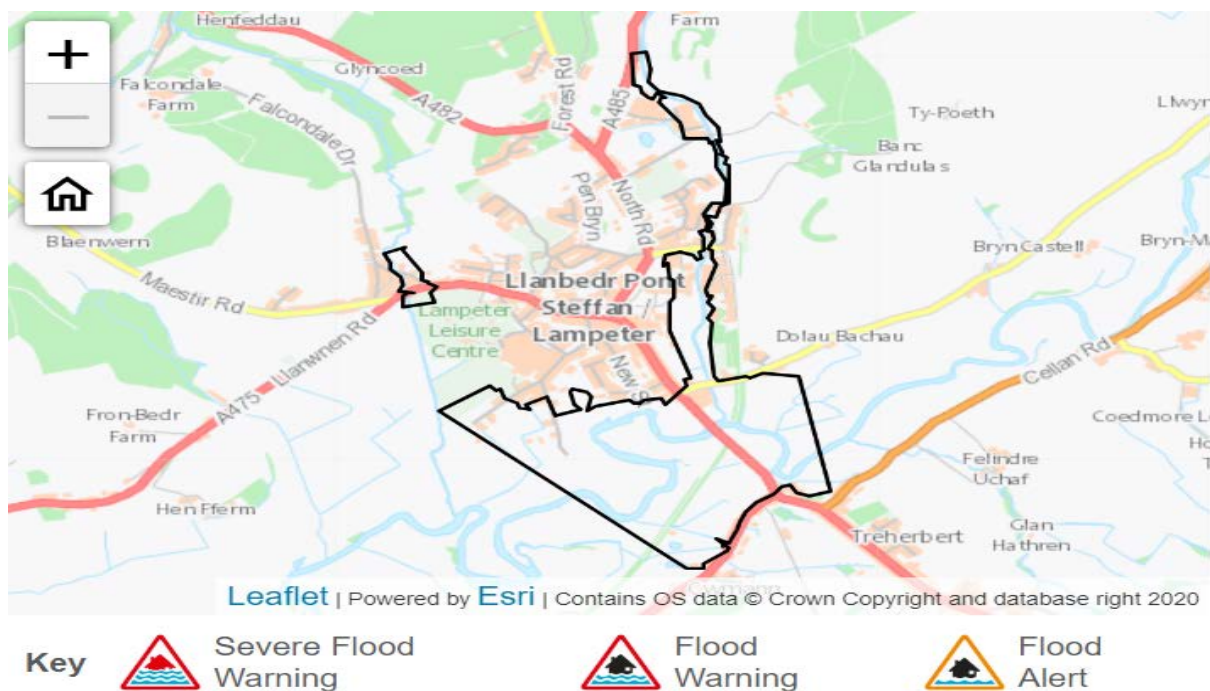


Figure 10: Lampeter flood Risk.

(Natural Resources Wales, 2024)

Potential Impact:

Physical damage to the campus and costly regulatory compliance could significantly affect university operations.

Mitigation Strategies:

Refer to "Structural damage from climate change" (ID 1) and "Non-compliance with new energy standards" (ID 2) in the Risk Register, outlining preventive measures like infrastructure reinforcement and adoption of energy-efficient technologies.

3.2.5 Health Risks

Risk Description:

Health risks remain a critical concern, particularly in managing the implications of COVID-19 and other infectious diseases on campus.



Figure 11: Hierarchy of risk controls.

(Welsh Government, 2021)

Potential Impact:

Health crises can disrupt campus operations, impact academic continuity, and affect the well-being of the university community.

Mitigation Strategies:

Documented in the Risk Register under "Managing health risks related to COVID-19" (ID 12), strategies include comprehensive health screenings, robust vaccination programs, and flexible learning options to mitigate these risks.

4.0 Procurement and Contract Recommendations for Dylan Thomas Building

4.1 Procurement Routes Analysis

Which procurement method was most frequently used in projects you were involved in?

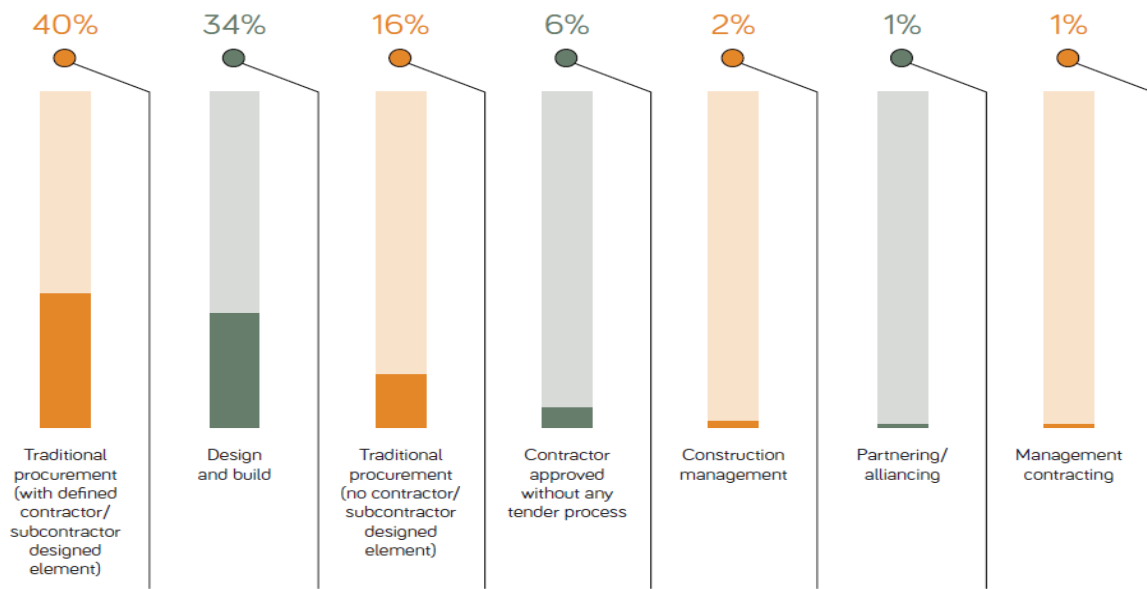


Figure 12: Procurement methods.

(RIBA Construction Contracts and Law Report, 2022)

Split of Projects

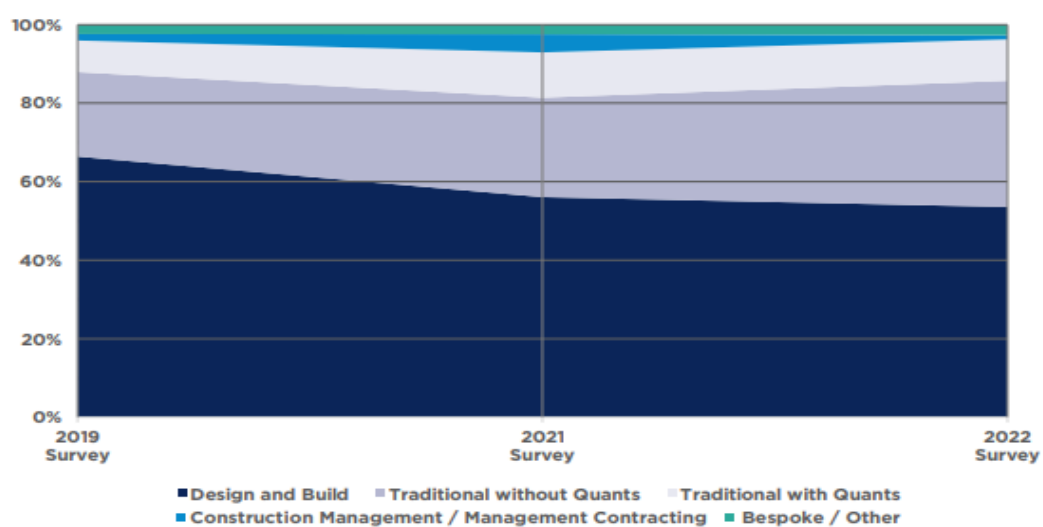


Figure 13: Split Projects

(Rider, Levett & Bucknall, 2022)

Traditional Procurement:

This method favours its straightforward division of responsibilities, where the designer's role is in the pre-construction phase, thereby minimising involvement during construction (Waterhouse, 2018) National Construction and Contracts Law Report 2018. It is particularly effective for projects where simplicity and predictability over flexibility, making it ideal for less complex energy efficiency projects where detailed, upfront specifications are crucial.

Design and Build:

Although there has been a slight decline in its popularity, the Design and Build approach remains a robust method for projects that benefit from integrated design and construction phases, enhancing coherence and alignment of project objectives (Rider Levett & Bucknall, 2022). This method supports innovative solutions in energy efficiency by facilitating seamless collaboration between designers and builders from the project's inception through to completion.

Management Contracting:

Suited for complex and multifaceted projects, this method involves a management contractor to coordinate the work of various subcontractors, which is essential in projects requiring high adaptability and swift response to emerging challenges (NBS, 2018). The flexibility inherent in this approach is advantageous for large-scale retrofitting projects but necessitates vigilant management to mitigate the risks associated with contractor coordination.

Construction Management:

Echoing aspects of management contracting, this method empowers clients with direct governance over the construction process, which can lead to enhanced transparency and control (Latham, 1994). However, it demands significant client engagement and expertise, making it suitable for clients like UWTSD who are committed to closely monitoring the sustainability aspects of their construction projects.

Emerging Trends in Procurement:

Given the evolving market dynamics post-Brexit and the ongoing global economic uncertainties, innovative procurement methods such as Integrated Project Delivery (IPD) are under consideration for their potential to foster greater cooperation among all project stakeholders (ESC Construction Consultants, 2024). This approach could be particularly beneficial in projects aiming for high sustainability and energy efficiency standards.

4.2 Contract Types Evaluation

A full list of Contract Types is in Appendix 3.

Figure 12 below highlights the most popular types of contracts from the past year according to RIBA (2022). In contrast, Figure 13 shows a change in contract popularity based on data from NBS (2018).

Which forms of professional appointment were used in your projects in the past 12 months?

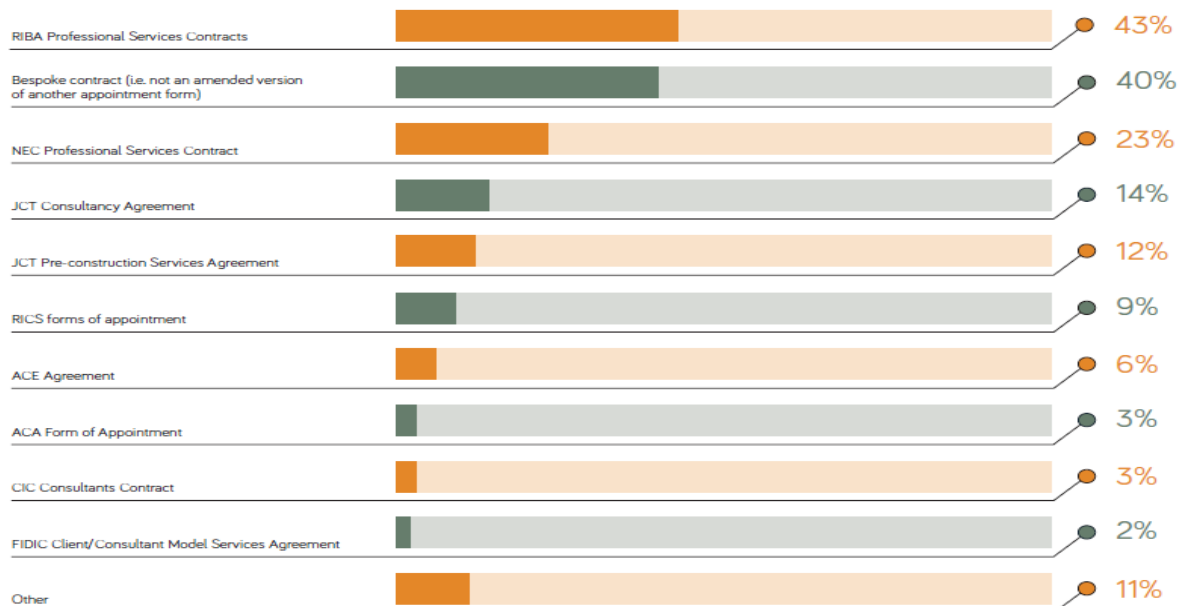


Figure 14: Professional contract appointments 2022.

RIBA (2022).

Which forms of professional appointment were used in your projects in the past 12 months?

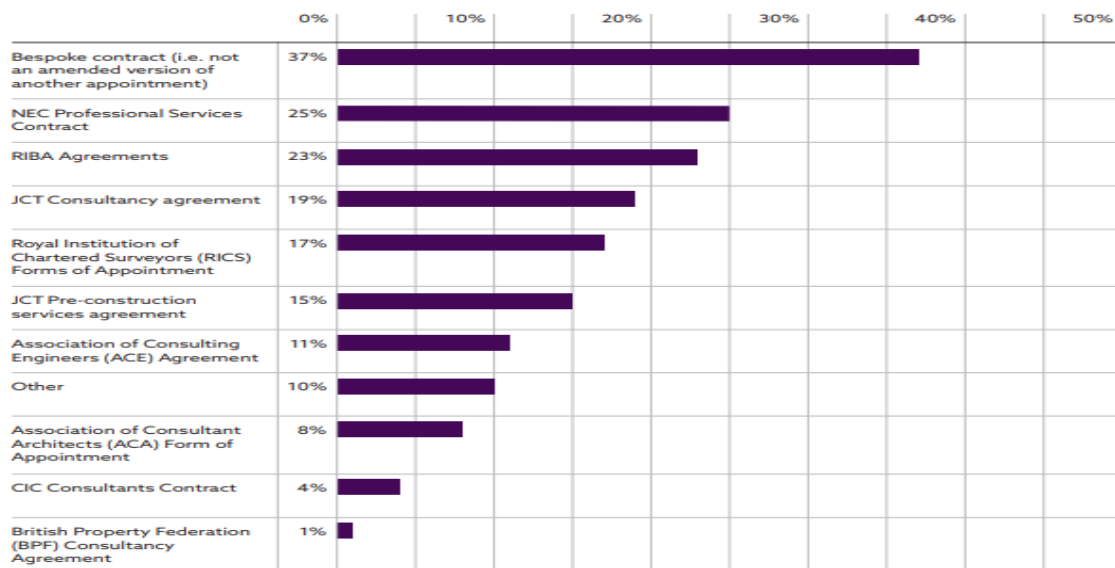


Figure 15: Professional contract appointments 2018.

NBS (2018)

The table below summarises the primary advantages and dis-advantages of each type of construction contract, focusing on key aspects relevant to decision-making in project management.

Contract Type	Advantages	Disadvantages
Standard	1. Uniformity and Predictability	1. Lack of Flexibility
	2. Legally Tested	2. Generalised Terms
	3. Cost and Time Efficiency	3. Over-reliance on Amendments
Modified	1. Tailored Fit	1. Increased Complexity
	2. Maintains Standard Framework	2. Higher Costs
	3. Efficient Risk Management	3. Potential for Oversight
Bespoke	1. Highly Customisable	1. Cost and Time Intensive
	2. Precise Risk Allocation	2. Legal Risks
	3. Innovation and Flexibility	3. Complexity in Negotiation

Figure 16: advantages and dis-advantages of each contract.

(Altus Group, 2024)

NEC4 Engineering and Construction Contract

Known for its adaptability and collaborative focus, the NEC4 contract is the recommendation for projects that require ongoing adjustments and stakeholder cooperation, key in implementing comprehensive energy solutions (NEC, 2021).

JCT Standard Building Contract

This contract type favours its structured approach, which is particularly useful in straightforward energy efficiency projects with well-defined parameters (JCT, 2021). Its predictability and clear guidelines support effective project management and cost control.

FIDIC Silver Book

While primarily used in international and high-stake projects, the FIDIC Silver Book offers extensive provisions on risk management, making it a wise choice for significant building modifications where legal and financial risks must be meticulously managed (FIDIC, 2016).

RIBA Domestic Building Contract

Often selected for smaller projects, this contract type is advantageous for its clarity and simplicity, suitable for minor renovations or energy improvements in smaller or residential buildings (RIBA, 2018).

5.0 Recommendations

For the upcoming renovations and energy efficiency upgrades at the Dylan Thomas building, adopting the NEC4 Engineering and Construction Contract is highly recommended.

This type of contract is particularly beneficial for large-scale projects that require intricate planning and substantial construction efforts. It promotes a collaborative environment where all stakeholders, including architects, engineers, and builders, can work closely together. This is crucial for maintaining transparency and adaptability, especially important in projects where the scope might evolve due to emerging energy efficiency standards or unforeseen challenges as set out in the Latham Report (O’Beirne, 2023). The Design and Build approach under the NEC4 framework further enhance this by fostering a unified strategy from the outset. It integrates the design and construction phases, ensuring that all parties are familiarised with the project’s sustainability objectives, thus enhancing efficiency, and reducing the likelihood of costly revisions.

For less extensive improvements, where the objectives are more defined and less likely to change, a simpler approach is preferable. In these instances, the Traditional Procurement method is ideal. Paired with either the JCT Standard Building Contract or the RIBA Domestic Building Contract, this method offers a more straightforward and predictable process. These contracts provide clear guidelines and responsibilities, which is advantageous for managing smaller projects with direct goals. They minimise complexities and ensure that smaller scale renovations proceed smoothly, on budget, and on schedule, with fewer communications and logistical challenges than more elaborate contracting methods.

Employing these specific contractual strategies will not only facilitate effective project management but also help in achieving the renovation goals of the Dylan Thomas building, making it a more energy-efficient and functionally updated facility.

6.0 Conclusion

In conclusion, this comprehensive analysis of UWTSD's Lampeter portfolio, exploiting academic models and industry practices such as the Balanced Scorecard (Risk Matrix) and SWOT analysis, has effectively mapped out strategies to navigate the socio-economic challenges posed by the post-COVID-19, post-Brexit, and Ukraine conflict environments.

The strategic utilisation of UWTSD's historic strengths and strategic partnerships, positions the university to enhance its market presence and stabilise student enrolment. The innovative risk management techniques, employing advanced tools like risk matrices, have pinpointed, and mitigated potential vulnerabilities, ensuring operational continuity and financial stability.

Furthermore, the adaptation of procurement strategies, especially the recommendation for the NEC4 contract, supports best practices in project management, fostering transparency and collaboration for the energy efficiency upgrades at the Dylan Thomas building. This approach aligns with the project-specific needs and sustainability goals, optimising the effectiveness, efficiency, and sustainability of construction efforts. It ensures that these enhancements contribute positively to the university's environmental footprint and operational efficiency.

To bolster UWTSD's position further, enhanced marketing strategies informed by consumer behaviour theories, a focus on sustainability through capitalising on governmental incentives, and active community engagement are my recommendations. These initiatives will not only improve UWTSD's ecological footprint but also enhance its brand visibility and community relations, positioning it as a leader in sustainable education.

By embracing these strategic initiatives and continuing to apply strict analytical frameworks, UWTSD can effectively navigate current challenges, promoting growth and sustainability. This strategic approach utilises the university's established heritage and adapts to the future with innovation and resilience, ensuring its long-term success in an ever-evolving educational and economic landscape.

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9.0 Appendices

Appendix 1

SWOT Analysis

Strengths	Weaknesses
1. Historic Heritage: Lampeter campus is one of the oldest centres for learning in Wales, adding historical value and appeal. 2. Rural Charm and Community Integration: Found in a small, historic town, offering a unique rural charm and strong community ties. 3. Focused Academic Programs: Notable for its humanities and social science programs, providing specialised education. 4. Sustainable Practices: UWTSD prides itself on sustainability, which aligns with contemporary environmental values. 5. Upgraded Facilities: Recent investments in campus facilities such as the Arts Building enhance both aesthetics and functionality. 6. Strategic Partnerships: Partnerships with local and international bodies boost academic and research opportunities.	1. Maintenance of Historic Buildings: High maintenance costs associated with the upkeep of older structures. 2. Limited Course Flexibility: Due to the specialised nature of courses, there is less flexibility in program offerings compared to larger campuses. 3. Geographical Isolation: Lampeter's rural location might limit student recruitment and access to urban amenities. 4. Funding Challenges: Dependency on restricted funding streams and grants for development projects. 5. Energy Efficiency Needs: Need to invest in sustainable and energy-efficient technologies to meet environmental standards. 6. Asbestos and Fire Safety Compliance: Historic buildings require significant updates to meet current fire safety and asbestos regulations.
Opportunities	Threats
1. Specialize in Eco-Friendly Programs: Enhance focus on sustainability and environmental programs, using the Tir Glas initiative. 2. Community Engagement Projects: Expand community-based projects and integration, enhancing student experiences and local relations. 3. Increase Digital Offerings: Develop online learning modules to attract a wider student base and adapt to changing educational demands. 4. Energy Optimisation: Conduct energy audits and update systems to improve efficiency and reduce operational costs. 5. Venue Utilisation: Use campus facilities for events, workshops, and community activities to generate additional revenue. 6. Expand Accommodation Options: Develop or refurbish student accommodations to enhance appeal and convenience.	1. Brexit Impact on Enrolment: Potential decrease in EU student numbers, requiring a shift in recruitment strategies. 2. Economic Challenges: Rising operational costs and economic instability could change funding and student affordability. 3. Competition from Other Universities: Nearby institutions might offer more modern facilities or diverse courses, attracting potential students. 4. Regulatory Compliance: Compliance with energy and building regulations requires significant investment. 5. Rural Location Drawbacks: Limitations in attracting international students and faculty due to the remote location. 6. Building Utilisation: Ensuring buildings are fully utilised to justify maintenance and operational costs.

Appendix 2

Risk Register

ID	Location	Risk Description	Likelihood	Severity	Risk Rating	Mitigating Action / Control Measures	Expected Resolution Date	Adjusted Likelihood	Adjusted Severity	Adjusted Risk Rating	Risk Type
1	Entire Campus	Structural damage from climate change	Medium 3	High 4	High 12	Reinforce buildings, improve drainage, update emergency plans	2025	Low 2	High 4	Medium 8	Environmental
2	Entire Campus	Non-compliance with new energy standards	High 4	High 4	High 16	Retrofit buildings with energy-efficient technologies, continuous monitoring	2024	Medium 3	High 4	High 12	Environmental
3	Entire Campus	Challenges in securing funding	High 4	High 4	High 16	Explore alternative funding sources, regular financial reviews	Ongoing	Medium 3	High 4	High 12	Financial
4	Entire Campus	Exceeding budget due to cost volatility	Medium 3	High 4	High 12	Strict budget management, contingency funding, frequent market analysis	Ongoing	Low 2	High 4	Medium 8	Financial
5	Entire Campus	Non-compliance with updated building regulations	High 4	High 4	High 16	Regular training on new regulations, hiring compliance consultants	2024	Low 2	High 4	Medium 8	Regulatory
6	Entire Campus	Non-compliance with COVID-19 safety measures	Low 2	High 4	Medium 8	Implement and update safety protocols regularly, health and safety audits	Ongoing	Very Low 1	High 4	Low 4	Regulatory
7	Entire Campus	Delays and cost increase due to supply chain	High 4	Medium 3	High 12	Diversify suppliers, increase stock of critical materials	Ongoing	Medium 3	Medium 3	Medium 9	Operational

ID	Location	Risk Description	Likelihood	Severity	Risk Rating	Mitigating Action / Control Measures	Expected Resolution Date	Adjusted Likelihood	Adjusted Severity	Adjusted Risk Rating	Risk Type
		disruptions									
8	Entire Campus	Issues with modern technology adoption	Medium 3	Medium 3	Medium 9	Training programs, phased technology integration	2024	Low 2	Medium 3	Low 6	Operational
9	Entire Campus	Failure to meet standards causing reputational damage	Medium 3	High 4	High 12	Public relations campaigns, transparent communication, adherence to standards	Ongoing	Low 2	High 4	Medium 8	Strategic
10	Entire Campus	Decrease in student enrolment	Medium 3	High 4	High 12	Marketing strategies, curriculum adjustments, partnerships with other institutions	Ongoing	Low 2	High 4	Medium 8	Strategic
11	Entire Campus	Challenges in hiring due to immigration regulations	High 4	Medium 3	High 12	Recruitment campaigns, partnerships with local universities, offering remote positions	Ongoing	Medium 3	Medium 3	Medium 9	Human Resource
12	Entire Campus	Managing health risks related to COVID-19	High 4	High 4	High 16	Health screenings, vaccination programs, remote learning options	Ongoing	Low 3	High 4	Medium 12	Human Resource
13	Entire Campus	Vulnerability to cyber-attacks	High 4	High 4	High 16	Enhanced cybersecurity measures, regular IT audits, staff training on data security	Ongoing	Medium 3	High 4	High 12	Technological
14	Entire Campus	Technology becoming outdated	Medium 3	Medium 3	Medium 9	Regular technology updates, investing in scalable solutions	Ongoing	Low 2	Medium 3	Low 6	Technological

ID	Location	Risk Description	Likelihood	Severity	Risk Rating	Mitigating Action / Control Measures	Expected Resolution Date	Adjusted Likelihood	Adjusted Severity	Adjusted Risk Rating	Risk Type
15	Entire Campus	Delays in retrofit projects due to regulatory challenges	Medium 3	High 4	High 12	Engage early with regulators, experienced project management team	2025	Low 2	High 4	Medium 8	Project Specific
16	Entire Campus	Contractor reliability and performance issues	Medium 3	High 4	High 12	Rigorous contractor vetting, performance bonds, regular monitoring	Ongoing	Low 2	High 4	Medium 8	Project Specific
17	Entire Campus	Disputes over contract terms	Medium 3	High 4	High 12	Clear contract terms, legal oversight, mediation clauses	Ongoing	Low 2	High 4	Medium 8	Legal
18	Entire Campus	Legislation changes affecting operations	Medium 3	High 4	High 12	Legal advisory services, staying informed on legislative updates	Ongoing	Low 2	High 4	Medium 8	Legal
19	Entire Campus	Changes in student population affecting facilities	Low 2	Medium 3	Low 6	Demographic studies, flexible facility management	Ongoing	Very Low 1	Medium 3	Very Low 3	Social
20	Entire Campus	Poor community relations affecting operations	Low 2	High 4	Medium 8	Community engagement programs, local collaboration initiatives	Ongoing	Very Low 1	High 4	Low 4	Social
21	Entire Campus	National or international political unrest impacts	Low 2	High 4	Medium 8	Political risk assessments, contingency planning	Ongoing	Very Low 1	High 4	Low 4	Geopolitical
22	Entire Campus	New trade barriers affecting material costs	Medium 3	Medium 3	Medium 9	Strategic stockpiling, exploring local suppliers	Ongoing	Low 2	Medium 3	Low 6	Geopolitical
23	Entire	Risk of flooding and	High 4	High 4	High 16	Enhanced drainage systems,	Ongoing	Medium 3	High 4	High 12	Natural

ID	Location	Risk Description	Likelihood	Severity	Risk Rating	Mitigating Action / Control Measures	Expected Resolution Date	Adjusted Likelihood	Adjusted Severity	Adjusted Risk Rating	Risk Type
	Campus	water damage				waterproofing, insurance					Disaster
24	Entire Campus	Damage from extreme weather conditions	Medium 3	High 4	High 12	Robust building standards, emergency response plans	Ongoing	Low 2	High 4	Medium 8	Natural Disaster
25	Entire Campus	Non-compliance with accessibility standards	Low 2	High 4	Medium 8	Accessibility audits, retrofitting facilities, compliance checks	2025	Very Low 1	High 4	Low 4	Accessibility
26	Entire Campus	Transportation issues affecting accessibility	Medium 3	Medium 3	Medium 9	Coordination with local transport authorities, providing shuttle services	Ongoing	Low 2	Medium 3	Low 6	Accessibility
27	Entire Campus	Integrity and protection of operational and student data	High 4	High 4	High 16	Data protection policies, regular security audits, compliance training	Ongoing	Medium 3	High 4	High 12	Information
28	Entire Campus	Compliance with data protection laws	High 4	High 4	High 16	Continuous legal and compliance training, updated data management systems	Ongoing	Medium 3	High 4	High 12	Information
29	Entire Campus	Increasing mental health concerns	High 4	High 4	High 16	Mental health support services, counselling, wellness programs	Ongoing	Low 2	High 4	Medium 8	Health and Wellness
30	Entire Campus	Future pandemic risks affecting operations	Medium 3	High 4	High 12	Pandemic preparedness plans, flexible learning and working options	Ongoing	Low 2	High 4	Medium 8	Health and Wellness
31	Entire Campus	Aging infrastructure requiring updates	High 4	High 4	High 16	Regular maintenance schedules, phased	Ongoing	Medium 3	High 4	High 12	Infrastructure

ID	Location	Risk Description	Likelihood	Severity	Risk Rating	Mitigating Action / Control Measures	Expected Resolution Date	Adjusted Likelihood	Adjusted Severity	Adjusted Risk Rating	Risk Type
						renovations					
32	Entire Campus	Utility failures disrupting essential services	Medium 3	High 4	High 12	Emergency power solutions, regular utility checks	Ongoing	Low 2	High 4	Medium 8	Infrastructure

Assessing the risk rating

To calculate the risk rating for each of the identified hazards please use the below risk matrix.

L = Likelihood

S = Severity

R = Risk rating

You will need to multiply the likelihood of harm by the severity of the consequence.

E.g. an almost certain (5) likelihood x minor (2) severity = a medium (10) risk rating.

Likelihood	Severity				
	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Almost certain 5	Medium 5	Medium 10	High 15	Critical 20	Critical 25
Likely 4	Medium 4	Medium 8	High 12	High 16	Critical 20
Possible 3	Low 3	Medium 6	Medium 9	High 12	High 15
Unlikely 2	Low 2	Low 4	Low 6	Medium 8	Medium 10
Rare 1	Low 1	Low 2	Low 3	Medium 4	Medium 5

Appendix 3

Contracting Bodies

Contracting Body	Type of Contract	Description/Options
RIBA Contracts	Building Contracts	Domestic building contract 2018 Concise building contract 2018
	Professional Services Contracts	Standard professional services contract 2020 Domestic professional services contract 2020 Concise professional services contract 2020 RIBA/BIID domestic/int. design services 2020 Sub-consultant professional services contract 2020 Principal designer professional services contract 2020 Client adviser professional services contract 2020 Domestic/Concise professional services contract 2020
NEC4 Contracts	Engineering and Construction Contract (ECC)	Option A: Priced contract with activity schedule Option B: Priced contract with bill of quantities Option C: Target contract with activity schedule Option D: Target contract with bill of quantities Option E: Cost-reimbursable contract Option F: Management contract
	Subcontracts and Other Contracts	The Engineering and Construction Subcontract (ECS) The Engineering and Construction Short Contract/Subcontract (ECSC/ECSS) Professional Services Contract (PSC) Framework Contract (FC) Term Service Contract (TSC) Supply Contract/Short Supply Contract (SC/SSC) Dispute Resolution Service Contract Design, Build and Operate (DBO) Alliance Contract (AC)
FIDIC Contracts	Standard International Contracts	Red Book (construction) Yellow Book (plant and design-build) Silver Book (EPC/turnkey) Green Book (short form) Pink Book (consulting services)
JCT Contracts	Standard UK Building Contracts	Standard Building Contract Intermediate Building Contract Minor Works Building Contract Major Project Construction Contract Design and Build Contract Management Building Contract Construction Management Contract JCT-CE Contract Measured Term Contract Prime Cost Building Contract Repair and Maintenance Contract

Appendix 4

UWTSD Sustainability Strategy & Policy

Corporate Strategies and Policies

Corporate Strategies and Policies	HR & Staff	Data Protection	Sustainability	IT
 Environment Policy Statement 768.1 KB, DOCX				
 Biodiversity and Eco-Systems Duty – Forward Plan 2022/25 3.37 MB, DOCX				
 Net Zero Carbon Interim Plan 22/24 1.11 MB, 24_0				
 The Biodiversity and Resilience of Ecosystems Duty - Triennial Report 2022 3.41 MB, PDF				
 Waste Policy (Wales) 2024 146.75 KB, 1 UWTSD WASTE POLICY (WALES)24				
 UWTSD Waste Management Plan 2022/25 1.31 MB, 1 UWTSD WASTE MANAGEMENT PLAN 22-25 UWTSD				
 Water Management Plan 2024 1.3 MB, DOCX				
 Sustainable Travel Plan 2022/24 1.35 MB, DOCX				
 Sustainable Food Plan 2022/25 1.3 MB, DOCX				
 Sustainability & Environmental Strategy 2022/25 6.5 MB, PPTX				
 Ethical Investment Policy 4.3 MB, DOCX				