

2018



(UWTSD, 2016)

SUSTAINABILITY IN BUILDING DESIGN: CANOLFANYR EGIN S4C Carmarthen

MANAGEMENT ETHICS SBUS5120

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“Carmarthenshire needs S4C but S4C needs Carmarthenshire”

Prof Hughes Vice Chancellor UWTSD

Introduction

On September 20th, 2013, it was announced that S4C was moving its headquarters out of Cardiff, its HQ for over thirty years. They had a choice between two proposals, one led by the University of Wales Trinity Saint David in Carmarthen and another led by Gwynedd council (BBC, 2013). In 2014, the S4C Chief Executive Ian Jones underpinned the decision to move S4C as "a major step forward" because S4C plans to boost the economy and Welsh language in another part of Wales (BBC , 2014a) a view in line with UWTSD's vision and commitment to the Welsh well-being and heritage.

Therefore, this paper will reflect why UWTSD invested in the Canolfan-Yr-Egin-S4C, the critical thinking behind the building design, the effect of the building on stakeholders.

Furthermore, the UWTSD Vice Chancellor Professor Hughes understood the potential of the S4C project and sold the idea to his team, he made a profound declaration that “Carmarthenshire needs S4C but S4C needs Carmarthenshire” (Davies, 2018).

I have created a mechanism by which I am going to analyse the S4C build see (Fig 1. Appendix 1) details the criteria that will be used to assess the Canolfan-Yr-Egin-S4C construction.

Fig 1 Common Assessment and Marking Criteria

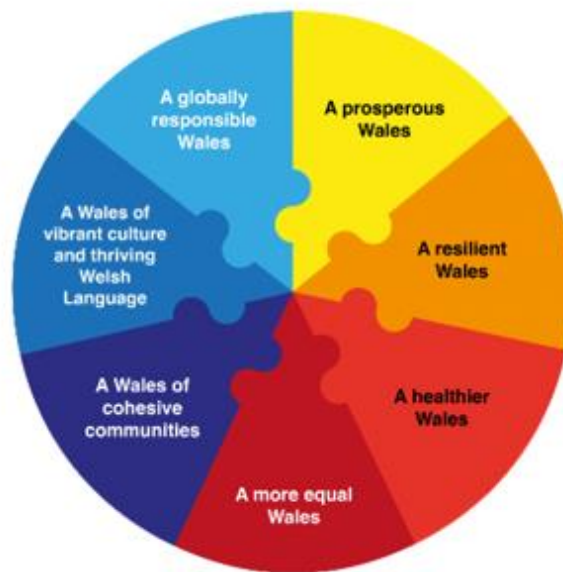
Table for sustainability				
COMMON ASSESSMENT AND MARKING CRITERIA				
Assessment Criteria	Policy in place	Is the policy not in place	Evidence of Implementation	No evidence of Implementation
CSR				N/A
Contribution to the community	Yes		Yes	
Well-Being of Future Generations (Wales)	Yes		Yes	
Cultural assets and heritage of Wales	Yes		Yes	
Creation of Opportunities through Partnerships	Yes		Yes	
Support the economic development Engage fully in the Swansea Bay City Region City Deal	Yes		Yes	
Stakeholders				
S4C	Yes		Yes	
Carmarthenshire	Yes		Yes	
Creative Industry	Yes		Yes	
Students at S4C	No	Yes	Not designed for students	No evidence yet
Sustainability				
Economic Sustainability	Yes		Yes	
Financial	Yes		Yes	
Sustainable development	Yes		Yes	
Estates and Infrastructure	Yes		Yes	
Sustainable Building Projects	Yes		Yes	
The environmental plan and Ecology	Yes		Yes	
Performance metrics and Carbon emissions of building	Yes		Yes	
Building running costs	Not Accessible		No Evidence because building is	Evidence not attainable
Flexibility of the internal space	Yes		Yes	
Building and systems complexity	Yes		Yes	
Environmental impact and Green Award	Yes		Yes	
Energy efficient	Not Available	Not Available	Cannot be determine now	Evidence yet to be determined
Contribution to corporate image.	Not Available	Not Available	Cannot be determine now	Evidence yet to be determined

(Sobola, 2018)

Sustainability

The Well-being of Future-Generations Act 2015 was designed with the goals of sustainable development in mind, and Sustainable Development is defined as “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Emmanuel, 2018, p. 3) and the UWTSD is fully committed to these goals (fig 2a Appendix 2; UWTSD, 2018).

Fig 2a Welsh act 2015 Goals

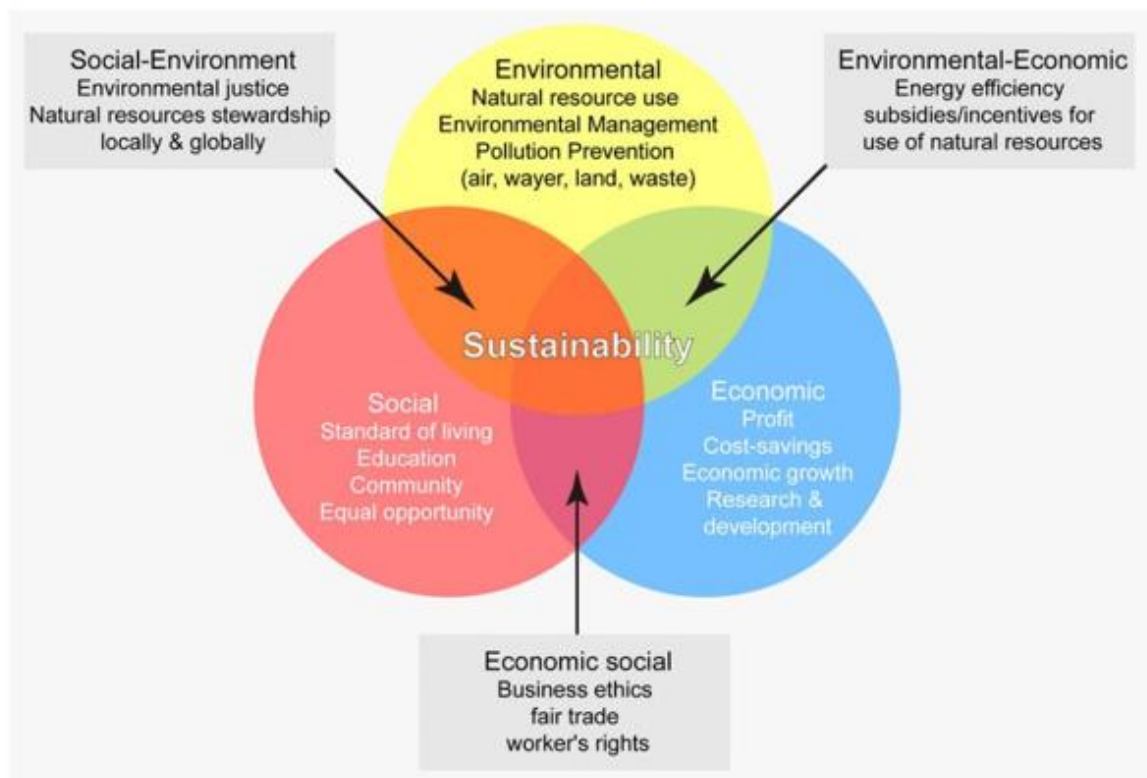


(NUS, 2018a)

Therefore, the decision to build the Canolfan-S4C-Yr-Egin was in response to the Welsh Government’s desire to develop high tech industry that will boost the creative-industries in Wales (BBC, 2016a). Prof Hughes argued that UWTSD’s vision is designed to create a unique and exciting creative hub that will impact positively on the economy, the community and the Welsh language across south west Wales (BBC, 2014). The University is acting in a morally right way, this is an ethics of duty, a form of Kantianism a deontological view point (Emmanuel, 2018a). This move by UWTSD touches on the triple-bottom-line for a non-profit sector because the triple-bottom-line concept (fig 2) has different meaning and application in

the University's sustainable strategy (UWTSD, 2013-2017). Henriques & Richardson, (2004) proposed that the concept of the 'triple bottom line' is an idea that business activity can deliver financial, social and environmental benefits. The Canolfan-S4C-Yr-Egin could become another centre of excellence for TV production like Cardiff's Roath Lock (Walesonline, 2013). UWTSD took initiative by bidding for S4C HQ to move to its campus in Carmarthenshire. The Canolfan-S4C-Yr-Egin will create over 200 jobs, and 55 of it is from S4C Corporate HQ. The Canolfan-S4C-Yr-Egin will be a creative industries hub for language-based projects and has links to education. This will be a major boost to the region's economy (BBC, 2014). Nevertheless, critics wondered why S4C's new headquarters would be relocating 120 miles away from Cardiff and others suggested that UWTSD needed £6m of extra cash from Welsh government in completing the project, the allegation the University denied (DailyPost, 2016).

Fig 2 Triple-Bottom-Line

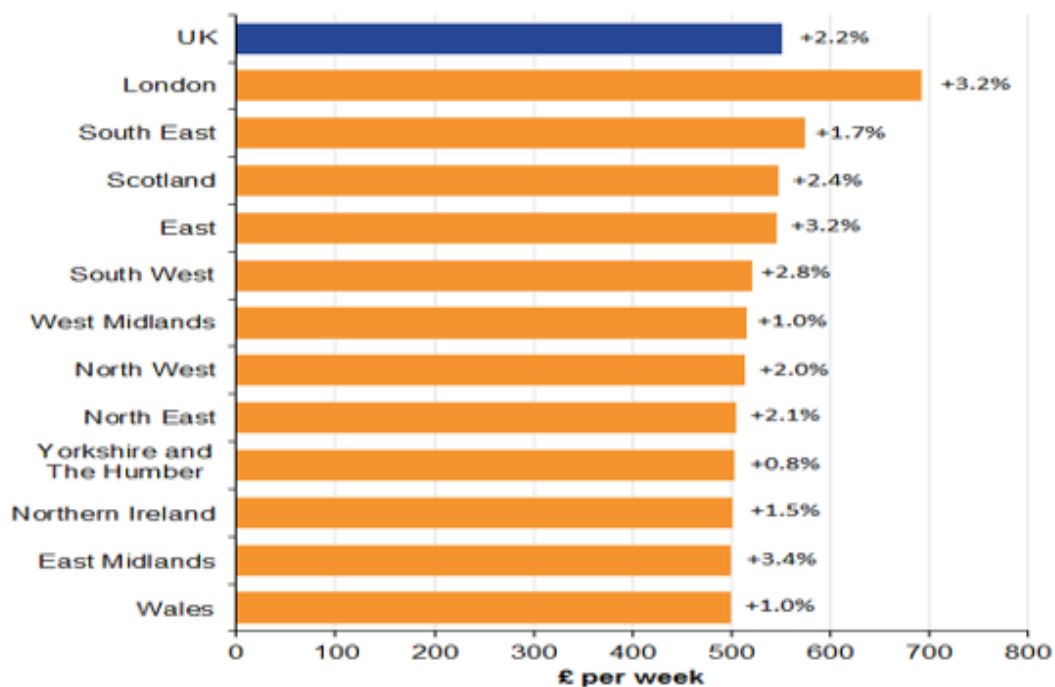


(Industr.com, 2016)

Economic Sustainability

The UWTSD has economic sustainability strategy in place which they hope to implement and commercialised. In an interview with Davies, (2018), he suggested the S4C building is a subsidiary of the University and will be self-sustaining. Economic-sustainability is an important aspect of the triple- bottom-line. The university carried out economic-impact-assessment about the viability of the project and its effect on the community. The economic-impact-assessment influences the type of resources used in the building to make it attractive to S4C and other tenants. The economic modelling revealed that the Canolfan-S4C-Yr-Egin could be contributing about £11 million to the local-economy, creating over 175-205 high paying jobs. It was hoped that the project will have a spill-over effect of about 500 subsidiary jobs. The need of the community was central in university thinking as Carmarthenshire is below the national income average (UWTSD, 2016; Davies, 2018; ONS, 2017)).

Fig 3 UK full-time gross weekly earnings



(ONS, 2017)

The decision is for the good of the communities a teleological decision cited in (Emmanuel, 2018a, p. 10). The university's action is contrary to Milton Friedman's proposal that the social responsibility of business is to increase its Profits (Friedman, 1970)

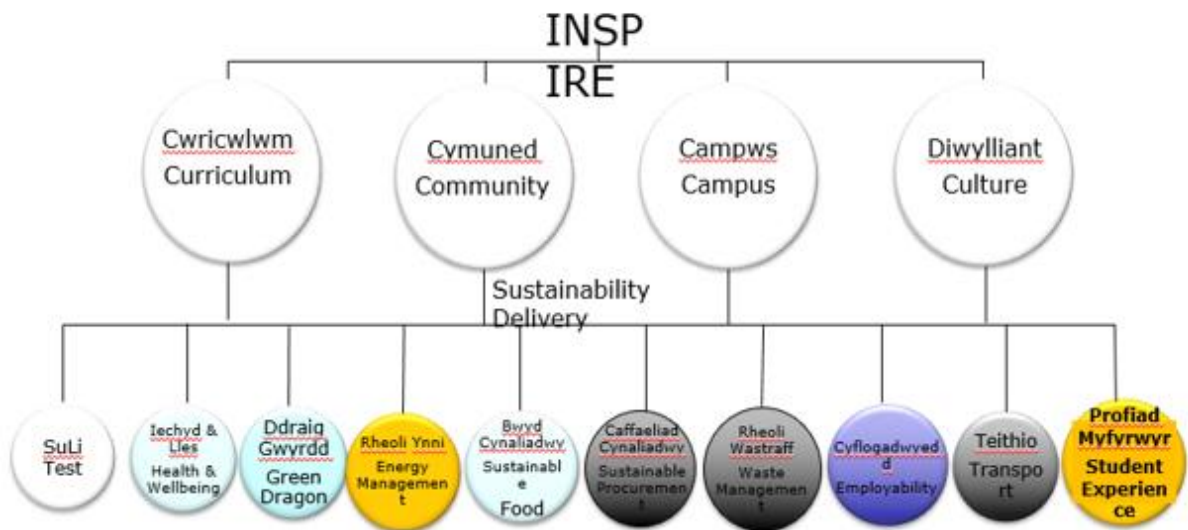
Commercial Sustainability

Furthermore, the university appointed Mott McDonald as financial advisers to ensure the commercial success of the project. Over 22 prospective tenants for the scheme are in place (Walesonline, 2015). S4C is the anchor tenants, it has invested money into the building in lieu of rent for the next 25 years (Davies, 2018). Davies, (2018) supposed that university wants to drive the local economy but will still make little income. Besides, the building is not for income generating (see Appendix 3 for more)

Sustainable development (SD)

Again, the University entrenched Sustainable Development through a system-based approach to deliver relevant educational pathways that promotes learning and social responsibility (UWTSD, 2018b). The university hoped that the centre will be a platform for stimulating ideas and nurturing talent among tenants, prospective student, practitioners and entrepreneurs and a place to connect and share ideas (UWTSD, 2016a). Additionally, the university tries to inspire sustainable-delivery through ten ways (fig 3a).

Fig 3a Inspiring Sustainable -delivery



(NUS, 2018b)

Sustainable Building Projects (SBP)

Fig 1 revealed the university's strategic plan on Canolfan-S4C-Yr-Egin. The university decided that all their buildings will be designed and constructed by companies locally.

Fig 4 Canolfan-S4C-Yr-Egin



(UWTSD, 2016)

The scheme's architects are Bristol-based BDP and Newcastle Emyln-based Rural Office for Architecture (Walesonline, 2015). Materials will be sourced locally wherever possible, design will be a visually pleasing and in a sustainable way (fig 4). Green spaces are created to enable and inspire social interaction (UWTSD, 2018). The building will include a comfortable café area, a variety of performance stages and an auditorium, and the aim of the ground floor is to attract the community, and there are green spaces outside (fig 4a & 4b; UWTSD, 2016).

Sustainability in building-design and construction

Designingbuildings, (2018) argued that 'sustainability in building-developments is a vast and complex subject that must be considered from the very earliest stages as the potential environmental impacts are very significant'. Therefore, once it was decided to build a new

building, the university was committed to consume resources responsibly as the university operates a Sustainable-Procurement-Policy, this is a sustainable consumption (UWTSD, 2016a; Emmanuel, 2018d).

Fig 4a Canolfan S4C Yr Egin

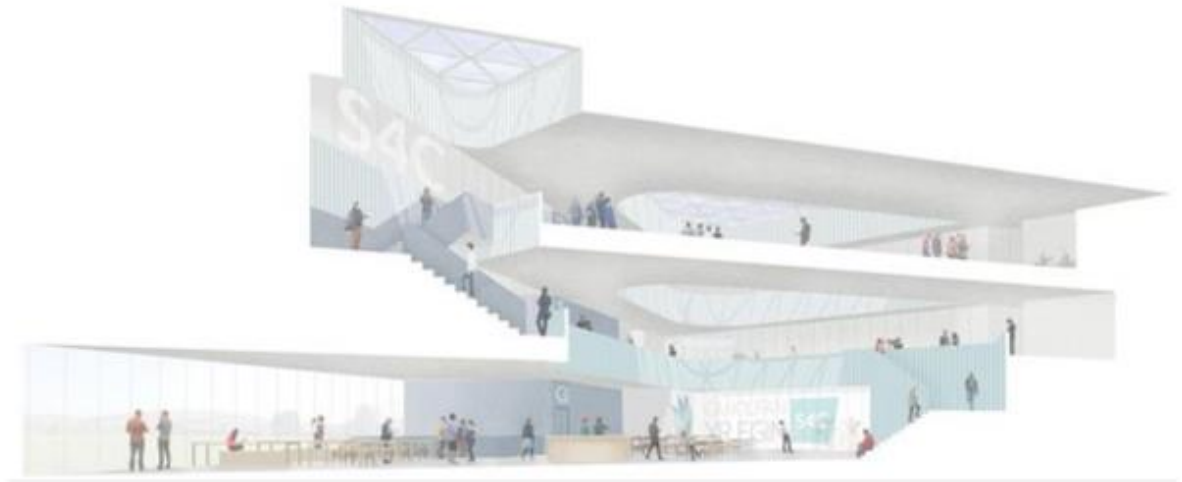


(BBC, 2015)

Canolfan-S4C-Yr-Egin is being built to an excellent standard, and the whole sustainability agenda is incorporated, and contractors must source materials as much as possible locally.

Furthermore, the contractor builds into their submission to offer training and engage with local people and must give opportunities for different trades to be part of the project. 85 local people are involved in the project (Davies, 2018; UWTSD, 2016a).

Fig 4b Canolfan-S4C-Yr-Egin



(Walesonline, 2015)

Estates and Infrastructure

The Canolfan-S4C-Yr-Egin is being built to highest standard argues (Davies, 2018). Still, UWTSD is committed to the provision of a high-quality sustainable, low-carbon physical environment (UWTSD, 2017 – 2022; Appendix 4).

The environmental plan, Ecology and Green Impact

Environment-impact-assessment (EIA) was carried out for the Canolfan-S4C-Yr-Egin. The point of EIA is to ensure that the environmental effects of a proposed development are fully considered as it would be carried in consultation with the planning authority (Designingbuildings, 2018). This align with the UWTSD biodiversity-policy (UWTSD, 2017a; 4c). Though, Davies, (2018) suggested there was a wetland issue and the impact-assessment affected and influenced Architect's built designed.

Fig 4c Biodiversity

UWTSD is committed to conserving and enhancing biodiversity across its estate while engaging and inspiring its students, staff, and the wider community in biodiversity issues through involvement in projects and events.

Beth yw'r effeithiau? What are the impacts?

- Colli cynefin / **Habitat loss**
- Colli rhywogaethau / **Species loss**
- Enw da / **Reputation**
- Cydymffurfriad / **Compliance**
- Llygredd / **Pollution**



Beth allwch chi ei wneud? What can you do?

- Gwaredu gwastraff a deunyddiau peryglus yn gyfrifol / **Dispose of waste and hazardous materials responsibly**
- Take positive action on the environment in Go Green Week!
- **Ymunwch a Effaith Werdd / Join Green Impact!**



(Lloyd, 2018c1)

Tom Yearley, the head of Sustainability-Delivery at UWTSD is charged with the sustainable deliver in the university. His department organised Green-Impact (GI) Assessment of all departments and campuses. Consequently, the GI assessment will be extended to the Canolfan-S4C-Yr-Egin.

Furthermore, the sustainable-delivery team is tasked with auditing and evaluating environmental behaviour change in the university (NUS, 2018). The sustainable team is

inspiring sustainable-living (fig 4d, 4f & 4g; Appendix 5) on campus and it will be implemented at the Canolfan-S4C-Yr-Egin.

Fig 4d Green-Impact



(NUS, 2018c)

Yet again, the University has a Green-Impact Criteria and a Reward system (Gold, Silver and Bronze was issued to inspire sustainable-living (Lloyd, 2018; fig 4e & fig 4f; Yearley, 2018).

Fig 4e Green-Impact-Criteria

Meini Prawf / Criteria;

- Wastraff ac Ailgylchu / Waste & Recycling
- Ynni / Energy
- Teithio / Travel
- Lles, Bioamrywiaeth, Cymuned / Well-being, Biodiversity & Community
- Mewnosod a Cyfathrebu / Embedding & Communication
- Caffael / Procurement
- Dwr / Water
- Ymgyrchoedd a Mentrau / Campaigns & Initiatives

The team has implemented a system for saving paper. This can include:

- A notice asking staff to consider whether they really need to print their documents by each photocopier/printer.
- Clear guidance on how staff can copy double-sided posted within readable distance of each photocopier.
- A scheme to reuse scrap paper within the office.

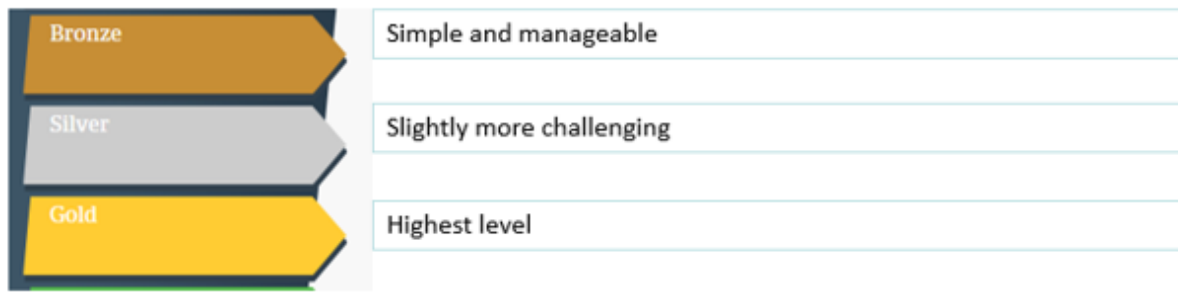
Within the last 6 months the team has proactively promoted the following to the majority of its staff for inter-campus travelling:

- Car sharing
- The use of video conferencing

Within the last 12 months the team has undertaken one or more proactive initiative to sustain or encourage biodiversity.

(Lloyd, 2018c2)

Fig 4f levels of actions for reward



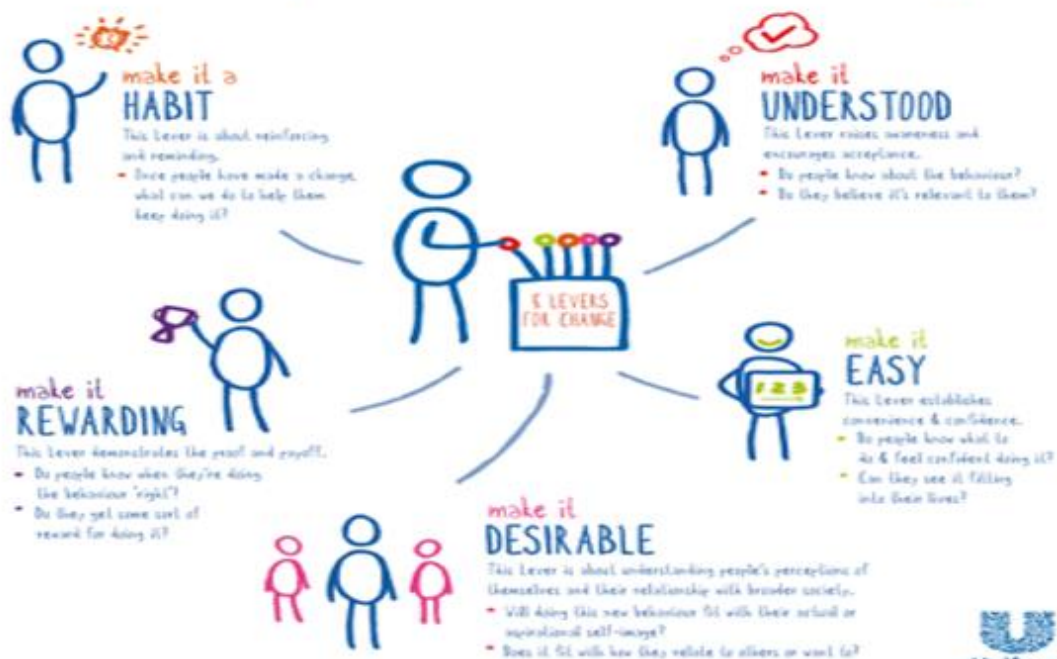
(NUS, 2018)

Similarly, due to the University's commitment to Green-impact through its Institute-of-Sustainable-Practice, Innovation and Resource-Effectiveness (INSPIRE) programme, UWTSD has won several Green awards including and has been finalist for three years in the prestigious Green-Gown-Awards 2015, 2016 & 2017.

Fig 4g Sustainable-living

INSPIRING SUSTAINABLE LIVING

A Summary of Unilever's Five Levers for Change



(NUS, 2018d)

In 2015, the University received three awards and one commendation (UWTSD, 2017; fig 4h). Sustainability is high on the list of priorities for staff and students according to 2016 survey completed by the NUS, over 87% of first year students agree that sustainable development is something universities should incorporate and promote (NUS, 2018e; fig 4i).

Furthermore, UWTSD achieved a First-Class Award in People & Planet's University Green League table for the past two years and was placed 27th out of 150 UK Universities. But most importantly, the University achieved Green Dragon Level 5, and this is the highest level achievable and is comparable to ISO 14001 (UWTSD, 2018c; 4i; Appendix 5a).

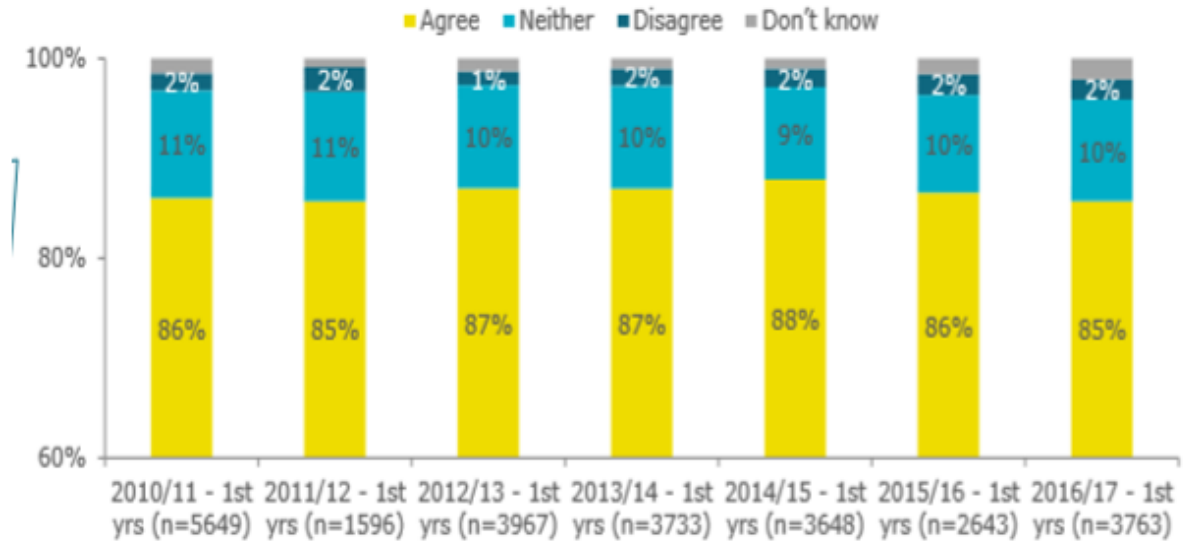
Fig 4h Green awards



(UWTSD, 2017a)

(UWTSD, 2018c3)

Fig 4i NUS Survey



(NUS, 2018f)

Moreover, the university has a waste policy. Fig 4j shows the Waste and Recycling at UWTSD.

Fig 4j Waste and Recycling

What are the impacts?

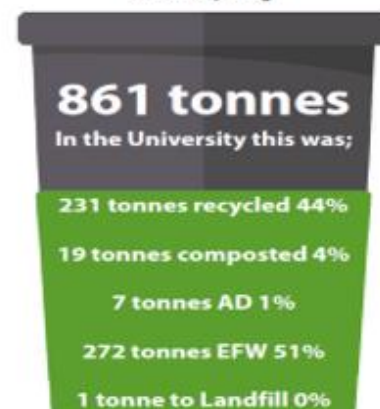
- Dihysbyddu Adnoddau / **Resource depletion**
- Allyriadau carbon / **Carbon emissions**
- Costau cynyddol / **Increased costs**
- Enw da / **Reputation**
- Cydymffurfio / **Compliance** – Environment (Wales) Act 2016
- Targedau Statudol / **Statutory Targets** - 70% by 2025

Rydym wedi ymrwymo i ailgylchu / **We are committed to recycling**

50%

o'n gwastraff erbyn diwedd 2017-18 / **of our waste by end of 2017-18**

Yn ystod blwyddyn academiaidd 2016/17, ein targed oedd 40% o ailgylchu / **During the 2016/17 academic year our target was 40% recycling**



(Lloyd, 2018c4)

Even still, there was concern about traffic and car packing, so, a new access road was designed linking M48 directly to S4C building, sadly, construction of the road is presently suspended. The suspension might have a negative effect on the travel-impact target of the university (Davies, 2018; fig 4k).

Fig 4k Travel impact

The Travel Survey revealed...

- **70%** of staff at UWTSD drive to work
- **61%** of staff travel in single occupancy vehicles
- **31%** of our staff travel up to 5 miles to University
- **63%** of our staff travel cross campus

Beth allwch chi ei wneud? What can you do?



Our Green Travel pages help you plan your sustainable journey to and between campuses <http://www.uwtsd.ac.uk/sustainability/green-travel/>

Beth yw'r effeithiau? What are the impacts?

- Allyriadau carbon / **Carbon emissions**
- Gorlawnder / **Congestion**
- Llygredd / **Pollution**
- Cost



(Lloyd, 2018c5)

Performance metrics and Carbon emissions of building

The UWTSD is committed to reducing carbon-emissions and wanted classification in the People and Planet-Green-League (UWTSD, 2013-2017; Davies, 2018). In addition, the university further demonstrated its commitment to carbon-reduction by appointing a Carbon Reduction Officer and set a carbon-reduction target fig 5l.

Tom Yearley argued Green-Impact was factored into the S4C project. Again, the university has been measuring its carbon-emission and will continue to do so with the Canolfan-S4C-Yr-Egin. The Canolfan-S4C-Yr-Egin is built to high standard and that technically will reduce energy-demand (Allen, et al., 2013; Appendix 6).

Jennifer Lloyd of the Sustainable deliver team believed that the S4C building will be treated the same as other university assets. The new building will be monitored and Building-Energy- Management-System will be installed with energy-efficient systems.

Building and systems complexity

Unfortunately, the S4C project is not operational yet (Appendix 6a) and (Appendix 6b) for the items that could not be verified.

Fig 51 Carbon target



(Lloyd, 2018c6)

Stakeholder Engagement and benefits to host community

When text mining technique was applied to the primary research, some words appeared more frequently (fig 5). Most of them relates to the stakeholders. The words include, community, people, and local besides the building. Others are S4C, sustainability businesses etc. This further emphasize the University's motivation for the project.

Fig 5 Frequent words



(Sobola, 2018a)

The University's ethical-investment-policy was clearly reflected in the S4C investment decisions (UWTSD, 2017b). Collaboration with stakeholders and integrating the University's objectives with those of other organisations for long-term benefit. (UWTSD, 2017 - 2022). Accordingly, the university held a public consultation on January 2016 to get support (Walesonline, 2015). The university put the community and other stakeholders before profit contrary to Friedman's, (1970) assertions about profit.

Freeman, (1983) advocated that a company's stakeholders are "those groups without whose support the organization would cease to exist". These groups (fig 5a) would include

employees, suppliers, political action groups, environmental groups, local communities, the media (creative), and more.

Fig 5a Stakeholders



(B2B International, 2018)

Scheemer, (2009 cited in (Youtube, 2017) proposed a Stakeholder analysis as a “process of systematically collecting and analysing qualitative information to determine whose interests should be taken into account when developing and or implementing a policy or a programme”. The stakeholder is anyone or group that has a stake or interest in the project who may or may not be needed in the decision-making process of a business. Scheemer, (2009) suggested to

1. Identify your stakeholders
2. Prioritizing-stakeholders
3. Understand your stakeholders
4. Managing-stakeholders

Once more, Freeman, (1983) argues that the corporate environment is like an ecosystem of related groups, they must be considered and satisfied for the long-term sustainability of the organisation (fig 5b).

Fig 5b Stakeholder

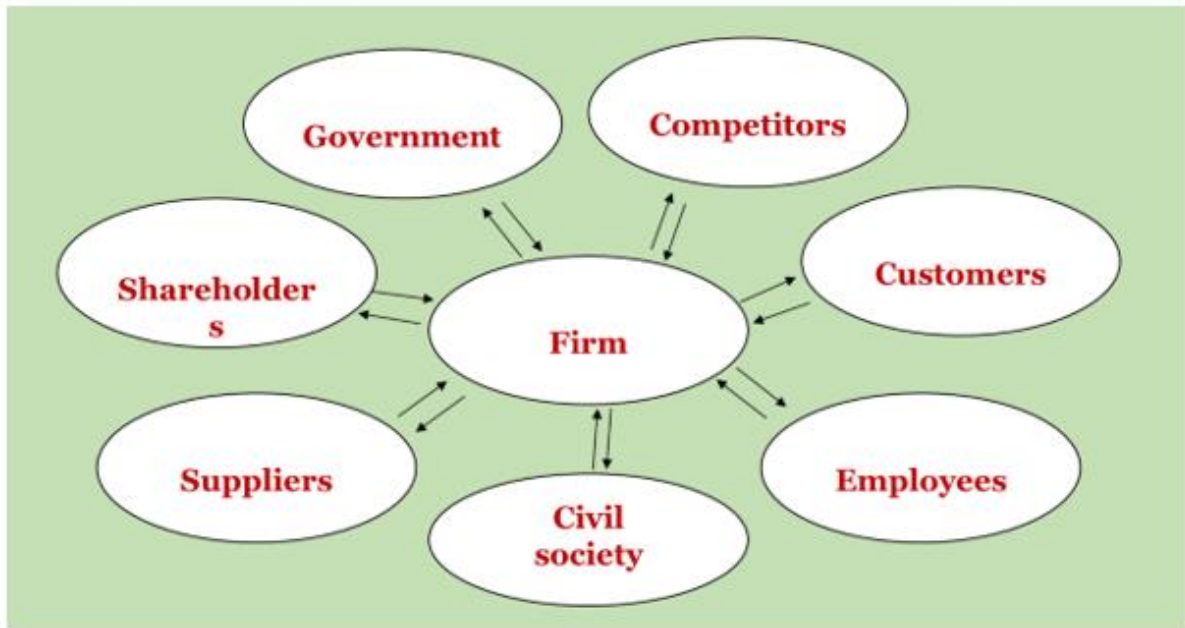


Managing stakeholders—and their expectations—is a key to project management success.

(The Project Management Blueprint, 2018)

S4C the anchor tenant is key stakeholder here, they have power influence and interest and investment therefore, they must be managed closely and likewise the Carmarthenshire County Council. Tinopolis-Cymru, prospective tenants, Welsh language initiative, Chamber of commerce, Welsh youth movement, Town council, local community theatre, the farmers club must be kept informed, they have high interest. The contractor, government, employees and people of Carmarthenshire must be kept satisfied. The student is likely to be of low interest as the building is not specifically designed for them. Nonetheless, the university maintains dual way communication with all stakeholders (Davies, 2018; fig 5c)

Fig 5c Communication with Stakeholders



(Emmanuel, 2018b, p. 15)

Davies, (2018) revealed the university observed that the people of Carmarthenshire, West Wales earn below the national average in terms of salaries (fig 3), young people always move away, an ageing population, therefore, the university set out to do something about it.

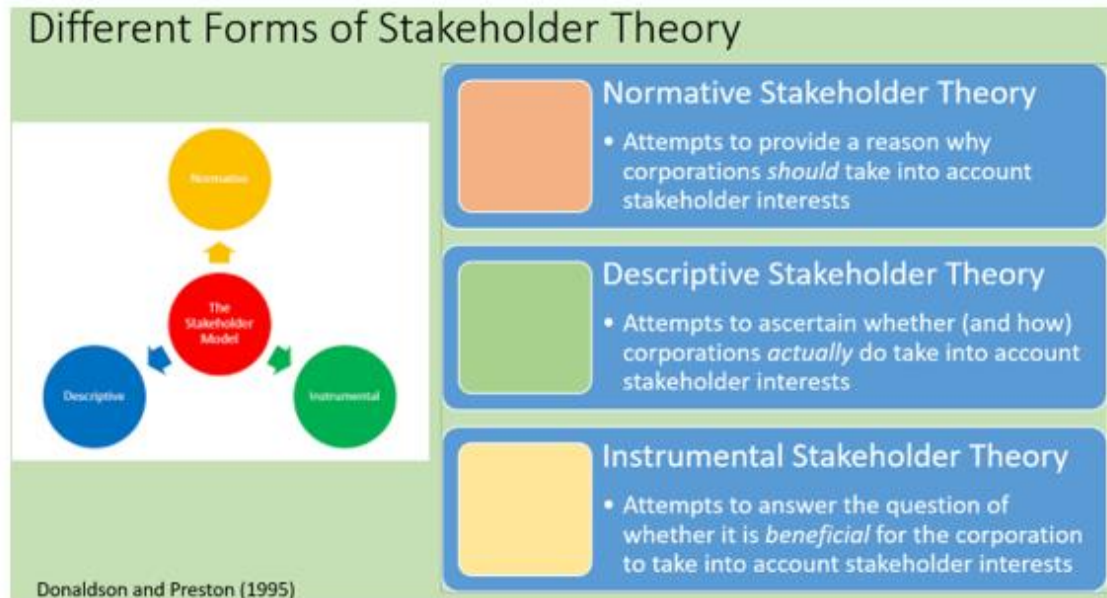
Furthermore, Carmarthenshire has one of the highest numbers of Welsh speakers in the last census again the University felt compelled to do something about that as a major employer and economic driver of the area (Appendix 7). Accordingly, the UWTSD's bid was for the people of Carmarthenshire.

Another argument was if people who works in the creative-industry lives in Carmarthenshire, they don't have to travel, thereby reducing carbon-emission. Still, the hub may have spill-over effect of allied technologies and IT may develop in the area.

The third issue was the social side of things, since S4C serves the people who are Welsh speaking, the facility was designed with the community in mind, the ground floor especially was designed for community use (Davies, 2018; UWTSD, 2016a). Donaldson and Preston

(1995) cited in Emmanuel, (2018) articulated three different forms of stakeholder theories fig 5d.

Fig 5d Stakeholder theories



(Emmanuel, 2018b)

UWTSD satisfies these three theories, it is in the university's interest to consider the stakeholder's interest as major employer, major economic driver and a major pedagogical provider. The university gathered local support to build sense of ownership, the support of the council was very important as well. Council leader Emlyn Dole said S4C project was a crucial development for Carmarthen that could provide a significant economic boost to the area, thus, delivering benefits to the local community (BBC, 2016b). 'Deep Ecology' proposed by philosophers like Bartelmus, 1994 and Holden, 2000 favours local communities and localised decision making (Emmanuel, 2018, p. 11).

Corporate Social Responsibility

The Canolfan-S4C-Yr-Egin is a quintessential case of an ethical Corporate Social Responsibility (CSR). The UWTSD, demonstrated its commitment to Welsh culture, heritage and language of Wales. (UWTSD, 2017 - 2022). The (European Commission. MEMO/09/109 issued on 16/03/2009) cited in (Emmanuel, 2018c) proposed that CSR is “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis”. Although Friedman, (1970) argued that the business has social obligations above and beyond making a profit while other authors such as Freeman, (1983) argued otherwise.

Furthermore, according to International Institute for Sustainable Development (Emmanuel, 2018c) CSR is a way that institutions could work with stakeholders mostly affected by their decisions by developing innovative and economically viable projects that will result in improved environmental protection and social conditions.

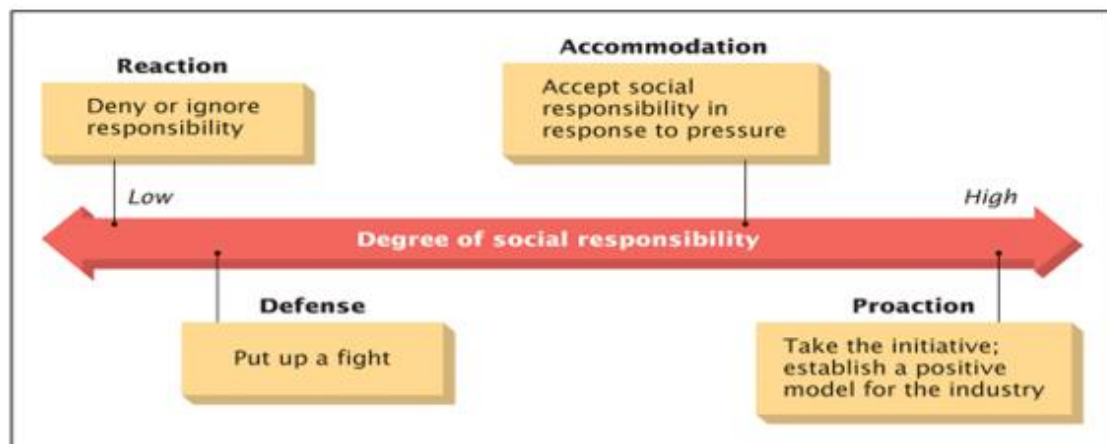
The Canolfan-S4C-Yr-Egin project is essentially a community development project by the university for its host community. Yes, in the long-term the university will benefit from the project, but this benefit cannot be compared to the economic, social and environmental benefits to Carmarthenshire. From fig 6. It can be deduced that UWTSD, took a proactive voluntary strategy. They took initiative in placing a bid to benefit a whole region. The project is an unselfish devotion to the interests of the community (altruism), and it could gain the university a competitive advantage in recruiting talented people. This project is an enlightened self-interest for the university by solving social problems (Emmanuel, 2018c).

The UWTSD, used its position in fulfilling its economic responsibilities in the Carroll's CSR pyramid (fig 6a). The organisation is demonstrating to Carmarthenshire that they are a good citizen. The University made a bid against a 'County' for the benefit of the host community.

The Canolfan-S4C-Yr-Egin is a huge philanthropic (fig 6b) gesture though the project is self-sustaining, the investment was a huge risk to the University. The intention is for the building to be used from 9:00am-9:00pm.

Fig 6 Voluntary action

A Continuum of Social Responsibility Strategies

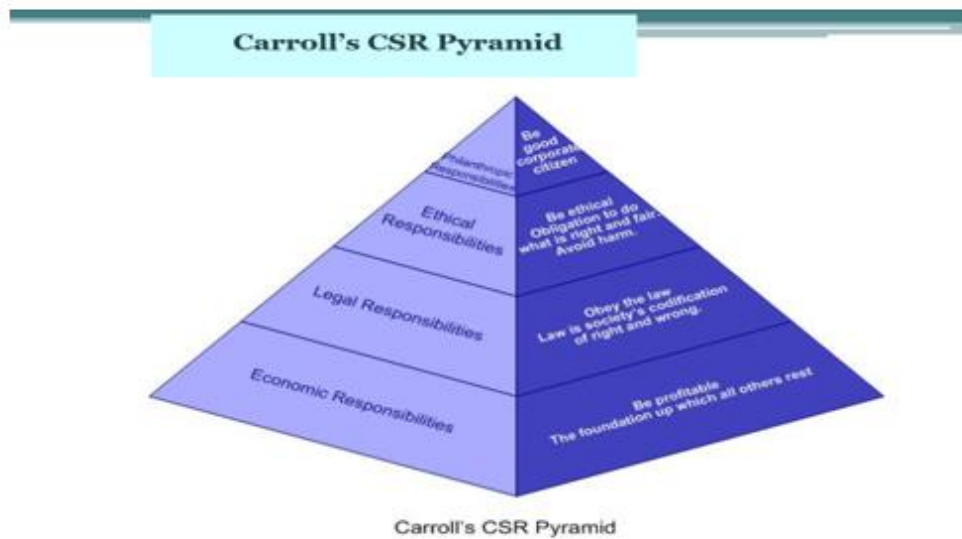


(Emmanuel, 2018c, p. 7)

The question was asked, why not convert an old building on Carmarthen for S4C? Appendix 8 explains why it is not practicable.

Freeman cited in (YouTube, 2009) proposed for complete engagement with stakeholders 24/7, 365, or they will engage in a way that will not benefit the organisation. He went on to suggest value creation to stakeholders by building public trust just by involving the stakeholders.

Fig 6a Carroll's CSR pyramid



(Emmanuel, 2018c, p. 14)

Fig 6b spending CSR Resources



(Emmanuel, 2018c, p. 15)

Creation of Opportunities through Partnerships

The Canolfan-S4C-Yr-Egin is a collaboration through strategic relationships between the university and S4C are anchor tenant (Davies, 2018; Appendix 9).

Conclusion

The Canolfan-S4C-Yr-Egin is essentially a community development project by the university for its host community. It fulfils and promotes the Well-Being of Future-Generations (Wales) Act 2015. The project is about the development and promotion of Cultural assets and heritage of Wales. Canolfan-S4C-Yr-Egin further supports the economic development in the Swansea Bay City Region. The project will be sustainable economically, socially and environmentally. Nonetheless, the paper has some limitations and will need to be investigated in the future Appendix 10. Also, the building would be operated under the current university sustainable policies.

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Appendix

Appendix 1 Common Assessment and Marking Criteria

Table for sustainability				
COMMON ASSESSMENT AND MARKING CRITERIA				
Assessment Criteria	Policy in place	Is the policy not in	Evidence of Implementation	No evidence of Implementation
CSR				N/A
Contribution to the community	Wales and its distinctiveness, through embedding the goals of the Well-Being of Future Generations (Wales) Act in all of our activities, and by celebrating the vibrant culture, heritage and language of Wales.		Canolfan S4C Yr Egin & INSPIRE	
Well-Being of Future Generations (Wales) Act 2015	Activities undertaken to promote Welsh heritage through project work, development of new curricula and the building of relationships with external partners (UWTSD, 2017 - 2022)		Canolfan S4C Yr Egin & INSPIRE	
Cultural assets and heritage of Wales	Wales and its distinctiveness through celebrating the distinctive linguistic and cultural assets and heritage of Wales. (UWTSD, 2018b)		Canolfan S4C Yr Egin & INSPIRE	
Creation of Opportunities through Partnerships	Collaboration through strategic relationships, working with others to provide educational and commercial opportunities and to ensure that Wales is connected to the wider world (UWTSD, 2017 - 2022)		Canolfan S4C Yr Egin & INSPIRE	
Contribution to corporate image	Delivery of our obligations under the Swansea Bay City Region City Deal		Canolfan S4C Yr Egin & INSPIRE	
Support the economic development Engage fully in the Swansea Bay City Region City	Support the economic development of the region through strategic engagement with business and civic partners (UWTSD, 2017 - 2022).		Canolfan S4C Yr Egin & INSPIRE	
Stakeholders	To our stakeholders: this strategy encapsulates the University's commitment to issues relating to sustainability, including its social responsibility. We look forward to your working collaboratively with us on making such partnerships an essential part of realising the Strategy regionally, nationally and internationally.		Canolfan S4C Yr Egin & INSPIRE	
S4C	The number of organisations offering innovative and commercial opportunities through the Swansea Waterfront and Yr Egin developments (UWTSD, 2017 - 2022).		Canolfan S4C Yr Egin & INSPIRE	
Carmarthenshire	To develop a partnership project with each local authority where the University has campuses in relation to sustainability (UWTSD, 2017 - 2022).		Canolfan S4C Yr Egin & INSPIRE	
Creative Industry	Wales and its distinctiveness through celebrating the distinctive linguistic and cultural assets and heritage of Wales. (UWTSD, 2018b)		Canolfan S4C Yr Egin & INSPIRE	
Students and S4C	Continue to enhance our campuses and facilities, ensuring that learners are provided with attractive, supportive, inclusive and sustainable environments in which to study (UWTSD, 2017 - 2022)		Canolfan S4C Yr Egin & INSPIRE	

(Sobola, 2018)

Appendix 1 Common Assessment and Marking Criteria continues

Students and S4C	Continue to enhance our campuses and facilities, ensuring that learners are provided with attractive, supportive, inclusive and sustainable environments in which to study(UwTSD, 2017 – 2022)		Canolfan S4C Yr Egin & INSPIRE	
Sustainability				
Economic Sustainability	The University's Ethical Investment Policy reflects the ethical values of its students, staff, local, regional, national communities and all our other stakeholders regarding investment decisions (UwTSD, 2017a). The University shall consider the ethical, social, economic and environmental consequences of its investments. Implementation of new strategies for research, applied research and commercialisation. An increase in income from research and commercialisation activities(UwTSD, 2017 – 2022).		Canolfan S4C Yr Egin & INSPIRE	
Commercial Sustainability	We seek to deliver a financially secure UwTSD Group, investing in areas of academic strength and potential, disinvesting where appropriate, and generating surpluses for future investment in areas that will benefit our learners and communities (UwTSD, 2017 – 2022).		Canolfan S4C Yr Egin & INSPIRE	
Sustainable development	Sustainable development, by behaving in a way which ensures that the needs of the present are met without compromising the ability of future generations to meet their own needs, and by systematically embedding this principle in our approach to teaching and learning (UwTSD, 2017 – 2022).		Canolfan S4C Yr Egin & INSPIRE	
Estates and Infrastructure	We are committed to the provision of a high-quality sustainable, low carbon physical environment to enhance the learner experience and support the delivery of innovative and accessible approaches to teaching and learning (UwTSD, 2017 – 2022)		Canolfan S4C Yr Egin & INSPIRE	
Sustainable Building Projects	To operate a Sustainable Procurement Policy (UwTSD, 2016a). Buildings will be designed and constructed, where possible using locally sourced materials, in a visually pleasing and sustainable way. In addition, there will be green spaces to create an inspiring social environment (UwTSD, 2018). The University is setting up a partnership develop training and research in sustainable construction (UwTSD, 2017 – 2022).		Canolfan S4C Yr Egin & INSPIRE	
The environmental plan and Ecology	Biodiversity Policy UwTSD is committed to a sustainable approach to biodiversity. UwTSD will consider ecological impacts and opportunities for ecological enhancement of any new building designs or construction activity(UwTSD, 2017). Buildings will be designed and constructed, where possible using locally sourced materials, in a visually pleasing and sustainable way. In addition, there will be green spaces to create an inspiring social environment (UwTSD, 2018). Recording environmental sustainability data and carbon management plan information to underpin sustainable campus environments (UwTSD, 2017 – 2022).		Canolfan S4C Yr Egin & INSPIRE	
	UwTSD's Carbon Management Policy 2014-2022		Canolfan S4C Yr Egin & INSPIRE	

(Sobola, 2018)

Appendix 1 Common Assessment and Marking Criteria continues

Performance metrics and Carbon emissions of building	HEFCW Carbon Management Policy 2014 'to enable universities in Wales to demonstrate their aspirations to reduce carbon emissions, and report on progress in a transparent and consistent manner.		Canolfan S4C Yr Egin & INSPIRE, Building Improvements, Campaigns to promote behavioural change, Monitoring, Building Energy Management System, SMART Metering of utilities, Replacement of boiler plants with energy efficient systems.	
Energy efficient	We are committed to the provision of a high-quality sustainable, low carbon physical environment to enhance the learner experience and support the delivery of innovative and accessible approaches to teaching and learning (UwTSD, 2017 - 2022).		Canolfan S4C Yr Egin & INSPIRE, Building Improvements, Campaigns to promote behavioural change, Monitoring, Building Energy Management System, SMART Metering of utilities, Replacement of boiler plants with energy efficient systems.	
Building running costs	We are committed to the provision of a high-quality sustainable, low carbon physical environment to enhance the learner experience and support the delivery of innovative and accessible approaches to teaching and learning (UwTSD, 2017 - 2022).		Canolfan S4C Yr Egin & INSPIRE	
Flexibility of the internal space	Continue to enhance our campuses and facilities (UwTSD, 2017 - 2022).		Canolfan S4C Yr Egin & INSPIRE	
Building and systems complexity	Buildings will be designed and constructed, where possible using locally sourced materials, in a visually pleasing and sustainable way. In addition, there will be green spaces to create an inspiring social environment (UwTSD, 2018).		Canolfan S4C Yr Egin & INSPIRE	
Environmental impact and Green Award	Introduce Carbon Management Plan (CMP) - Appoint Energy Manager from savings identified - Appoint Environmental Sustainability Engagement Officer from savings identified. Maintain Green Dragon Level 5. Improve performance in NUS Green Impact including Food for Life standards (UwTSD, 2017 - 2022). Waste Management Policy (UwTSD, 2017b).		Green Impact Audit, Green Gown Awards 2017 Canolfan S4C Yr Egin & INSPIRE	
Contribution to corporate image	Delivery of our obligations under the Swansea Bay City Region City Deal		Canolfan S4C Yr Egin & INSPIRE	

Flexibility of the internal space	Continue to enhance our campuses and facilities (UwTSD, 2017 - 2022)		Canolfan S4C Yr Egin & INSPIRE	
Building and systems complexity	Buildings will be designed and constructed, where possible using locally sourced materials, in a visually pleasing and sustainable way. In addition, there will be green spaces to create an inspiring social environment (UwTSD, 2018)		Canolfan S4C Yr Egin & INSPIRE	
Environmental impact and Green Award	Introduce Carbon Management Plan (CMP) - Appoint Energy Manager from savings identified - Appoint Environmental Sustainability Engagement Officer from savings identified.		Green Impact Audit, Green Gown Awards 2017 Canolfan S4C Yr Egin & INSPIRE	
Contribution to corporate image	Delivery of our obligations under the Swansea Bay City Region City Deal		Canolfan S4C Yr Egin & INSPIRE	

(Sobola, 2018)

Appendix 2 Well-being of Future Generations Act 2015

Seven Well-being Goals

1. A prosperous Wales
2. A resilient Wales
3. A healthier Wales
4. A more equal Wales

5. A Wales of cohesive communities
6. A Wales of vibrant culture and Welsh language
7. A globally responsible Wales (Futuregenerations.wales, 2015)

Appendix 3 Commercial Sustainability

The development of the Canolfan-S4C-Yr-Egin (fig 3) is aimed at attracting other creative companies into Carmarthenshire and wider areas to boost the local economy. Although, financial Sustainability was built into the development, sadly, the university will be losing income as it has not met its completion deadline scheduled for April 2018 (UWTSD, 2016a)

Appendix 4 Estates and Infrastructure

Although Canolfan-S4C-Yr-Egin is planted in the oldest town in Wales, and the building was designed to cater for variety of events, the centre will offer varied programmes including exhibition, performance comedy, and music. The UWTSD wanted to ensure that Carmarthenshire have healthy people and communities living within a thriving environment where there are adequate natural resources to live and work within a strong economy (NUS, 2018).

Appendix 5 Green-Impact

On 26th April 2018, another set of GI-Auditors were trained because the University recognised that as a large organisation, they have large environmental and social impacts (Yearley, 2018).

Appendix 5a Green-Impact

Furthermore, The Sustainability-Delivery-Team's has an internship scheme in various fields including Blog and Design Support, Energy and Waste, Events and Campaigns, and Fairtrade and Sustainable Food (UWTSD, 2017). Furthermore, the University presently has seventeen Green-Impact teams, one hundred and sixty-seven people are involved in six hundred and fifty actions. The University presently has seventeen Green-Impact teams, one hundred and sixty-seven people are involved in six hundred and fifty actions.

Appendix 6 Building and systems complexity

The university is investing in building management systems to reduce carbon-footprint, and Yearley, (2018) suggested that cost of carbon must be less than £200.00 and the S4C is no exception.

Appendix 6a Building and systems complexity

The Canolfan-S4C-Yr-Egin is built to high standard, it was designed to “make a statement”, it will contribute to corporate image of UWTSD, and there is flexibility of the internal space (UWTSD, 2016a).

Appendix 6b Building and systems complexity

- Energy-efficient
- Building-running-costs-Productivity of occupants
- Contribution to corporate-image
- Environmental-impact.
- Building-and systems-complexity

Appendix 7

Besides, the university wanted the S4C-HQ, since business tend to survive where there is HQ and S4C serve welsh speaking people.

Appendix 8 extra question

Unfortunately, the old university buildings are not suitable and inefficient for modern building design for example wheel chair access. Still, refurbishing the old building could be more expensive as oppose to constructing a new building. Consequently, the university decided to develop something new and of 21st century (Davies, 2018; UWTSD, 2016a).

Appendix 9

The hope is there may be interaction and collaboration among tenants, the allied industries, the community, school children, welsh language ladies institute, students as well.

Appendix 10 Limitations such as that need to be investigated

1. Inability to determine the actual emission
2. Could not determine other stakeholder involvement in management of the facility
3. Cannot determine how many minority areas involved in management of the facilities
4. The KPI's for its energy efficiency.
5. The environmental plan and Ecology
6. Performance metrics and Carbon emissions of building
7. Building running costs
8. Carbon management plan/Green