Key Decision Required:	No	In the Forward Plan:	Yes

CABINET

15 APRIL 2016

REPORT OF THE REGENERATION PORTFOLIO HOLDER

A.2 HARWICH INNOVATION CENTRE PROJECT

(Report prepared by Tom Gardiner, Regeneration Manager)

PART 1 – KEY INFORMATION

PURPOSE OF THE REPORT

To inform Cabinet of the work being undertaken to establish the demand and need for an Innovation Centre in Harwich, focussed on growth in the maritime, ports and logistics, offshore renewables and engineering sectors, and to explore the opportunities afforded by Mermaid House (a vacant building on the quayside currently in the ownership of Trinity House). Cabinet are requested to: endorse a Memorandum of Understanding; to initiate the Property Dealing Procedure; and approve a range of necessary technical studies and viability/economic impact assessments being undertaken to fully inform the Council's position, and thereby enable it to determine whether or not to proceed with the delivery of the project.

EXECUTIVE SUMMARY

In the East of England, major investment is planned in offshore wind, oil and gas, and decommissioning redundant rigs and platforms. All three sectors present significant economic, employment and local growth opportunities for marine and offshore engineering hubs on the East coast.

These energy sub-sectors represent 65% of the forecast investment in the East of England energy sector to 2020, with the most significant investment opportunities for the supply chain in Harwich being in supporting the installation and operations and maintenance (O&M) activities of East Anglia One and Galloper offshore wind farms, the decommissioning of four offshore gas sites, and the further development of the Cygnus and Platypus oil and gas projects.

Growth in these sectors presents a significant opportunity for Harwich, subject to the right infrastructure being in place to support the requirements of these industries and associated supply chain businesses. To this end Tendring District Council and Essex County Council (the project partners) have been working to establish the demand and need for an Innovation Centre in Harwich, providing managed work space for businesses working in the maritime, ports & logistics, offshore renewables, and engineering sectors.

In November 2015 the Essex County Council appointed Nautilus Associates to review and refresh an earlier demand and need study undertaken in 2013/14. Their assessment of current market conditions concludes that there is a significant demand for managed work space in Harwich that could exceed supply in the medium to long term. As part of the study, 26 companies expressed a firm interest in securing space within a managed office facility located in Harwich. These respondents had a work space requirement to support up to 87 employees.

In addition to this pipeline of potential occupiers, 20 respondents expressed an interest in taking a "virtual tenancy" at the proposed Centre, and 35 stated that they would use meeting rooms at the Centre and/or access Business Support Services, should these available (at this stage the initial preferred option should the project proceed, would be that the management of the Centre should be awarded under contract to a third party provider that would have responsibility for: managing the facility; providing information, advice and guidance to the Centre's users and occupiers; and providing more generic business support services across the District – the cost of providing this service would be met from the rental income received from the businesses using the Centre).

The Nautilus Associates Demand and Need Study, is attached for information at A.2 Appendix A.

As part of their commission, Nautilus Associates were also directed to explore the opportunities presented by Mermaid House, a currently under-utilised building in the ownership of Trinity House. Either project partner could acquire the leasehold interest in the property.

The neighbouring property (Miranda House) was considered as part of earlier work commissioned by Essex County Council and undertaken by Lambert Smith Hampton (LSH). However this building was discounted as a potential venue for the proposed Innovation Centre, because it was considered to be too small for the partners' requirements, and because the owner/manager of the building was unwilling at that time to engage with LHS. Miranda House is currently offered to the market as managed work space, however the offer (in terms of business support) is currently very limited and the building is significantly under-utilised.

Mermaid House is located on The Quay in Harwich and within easy access of both Harwich International Port and Harwich Navyard. The building offers a gross internal area of 9,800sqft/910m^2 (subject to survey) and with refurbishment could realise a net lettable space of 6,800sqft/634m^2.

Nautilus Associates estimate that the refurbishment of Mermaid House (providing the type of work space thought to be of most interest to potential occupiers – private office space, meeting rooms, break-out and networking areas, co-working space, reception, kitchen and toilets) will cost in the region of £1.3M, and that the Centre (when fully operational) will earn an estimated annual rental income of circa £180K.

The estimated refurbishment cost represents in itself a significant obstacle to the delivery of the proposed Centre. However in February 2015 the Council earmarked funding of £500K against property related projects and if the project proceeds it is proposed that this funding is used to support the delivery of the Innovation Centre, in the event that Cabinet determine at a later date to proceed to the delivery phase of the project.

In addition, in December 2015 Essex County Council's Capital Programme Board endorsed proposals for the Innovation Centre at Outline Business Case, and in so doing provisionally allocated £350K towards the capital costs associated with the refurbishment of Mermaid House. Whilst this funding is yet to be formally allocated (this is subject to the production and endorsement of a Full Business Case – to be informed by the technical, cost and viability studies detailed below) the County Council has given its strong support for the provision of an Innovation Centre in Harwich, and it's provisional capital allocation helps to close the projected funding gap.

The proposed Harwich Innovation Centre has been identified favourably within the Greater Essex Project Pipeline. This will shortly be presented to the South East Local Enterprise Partnership (with the endorsement of the Greater Essex Business Board) and this could open the door to third party funding via: Local Growth Deal 3 (yet to be negotiated with Central Government); SEFUND (a new loan fund being established by the South East Local Enterprise Partnership); and/or resources via the European Regional Development Fund (ERDF).

The Regeneration, Inward Investment and Growth Team will also monitor the availability of newly announced funding streams, to ensure that the Council is alerted in good time to the full range of available resources.

Whilst Trinity House has indicated its support for the proposed use of Mermaid House as an Innovation Centre, it has informed the partners that its participation in the project will be limited to that of landlord, in the event that the partners determine to proceed with the project and seek to secure a lease of the building. Either partner could acquire the lease and therefore it is necessary to initiate the Council's Property Dealing Procedure to commence the feasibility work.

In acknowledgment of the time it will take the partners to develop the project to a stage where the necessary approvals can be sought, Trinity House has requested the preparation of a Memorandum of Understanding (MOU) detailing the intentions of each party. Specifically Trinity House would like to secure some comfort that the two Councils have firm intentions to pursue this project, and in return they will undertake not to actively market the building for a period of nine months from the date the document is signed (this period of time is yet to be negotiated with Trinity House). The draft MOU is attached for information at A.2 Appendix B and Cabinet is requested to endorse signing the document to demonstrate commitment at this stage of the project.

In order to progress the project to the next stage of development; to undertake due diligence to protect the partners interests; and to inform the partners negotiating position (should the project ultimately proceed) approval is sought to initiate the full range of studies that will provide the technical, cost, and viability information necessary to inform the future decision making process.

Once this work has been concluded, should the partners decide to proceed with the delivery of the project, then this information will be used to inform the commercial negotiation with Trinity House and critically to underpin any third party application for funding, thereby enabling the partners to present a fully costed and viable scheme (prospective funders normally require applicants to present "shovel ready" projects).

The proposed technical studies will include:

- Building/Structural Survey;
- Mechanical and Electrical Survey;
- Design and Layout Proposals;
- Measured Assessment of Refurbishment Costs;
- Economic Impact Assessment & Green Book Appraisal

The required technical work will be procured in line with established protocols, and is estimated to cost in the region of £40,000. Funding for this work is available within existing resources allocated against the Council's economic development and regeneration

function.

Once this work has been completed a further Cabinet Report will be presented outlining the findings of the technical studies and providing detailed information on the likely costs of refurbishment and the overall viability of the project. This report will seek Cabinet approval to either terminate the project or to progress the proposed Centre to the next phase of delivery.

RECOMMENDATION(S)

It is recommended that Cabinet:

(a) Notes the scope, content, and recommendations of the Nautilus Associates Demand and Need Study shown at A.2 Appendix A;

(b) Endorses commitment to the project at this stage and authorises the Chief Executive in consultation with the Regeneration Portfolio Holder to finalise and sign the Memorandum of Understanding as set out in Appendix B in consultation with the signatory organisations;

(c) Initiates the Property Dealing Procedure in order for the technical studies, valuations and negotiations to be carried out in order to inform the preparation of a business case and final decision, to be the subject of a future report;

(d) Approves the use of the Business Investment and Growth budget (up to a maximum of £40K) to undertake the full range of technical studies, cost and viability assessments necessary to inform the Council's position.

PART 2 – IMPLICATIONS OF THE DECISION

DELIVERING PRIORITIES

Proposals to deliver an Innovation Centre in Harwich with managed work space responds directly to the corporate goals identified within the Council's Corporate Plan (Tendring Life) and to the objectives of its Economic Development Strategy (EDS).

Specifically the Scheme responds to the following Corporate Goals:

- **Corporate Goal 3:** Help children and adults achieve their full potential;
- **Corporate Goal 4:** Address deprivation; and
- **Corporate Goal 6:** Coastal opportunities and protection.

The proposal also responds to the following EDS Objectives:

- **Objective 1:** Supporting Tendring's growth locations by intervening in areas where the potential for economic growth is highest and where there is a strong case for intervention particularly (but not exclusively) in Harwich, Clacton and West Tendring;

- **Objective 2:** Targeting growth sectors, which are best placed to support growth and job creation within the District's economy; and

- **Objective 4:** Supporting modernisation, diversification and growth within the business base, improving innovation and inward investment and creating dynamism in the economy that will make Tendring more competitive and resilient to national and international shock.

FINANCE, OTHER RESOURCES AND RISK

Finance and other Resources

Funding to undertake the proposed technical studies (£40K) is available within the Business Investment and Growth budget. This includes a Project Expenses Account of £1.25m. Whilst there are some projects identified for funding from this account, there remains more than sufficient funding to resource the cost of the proposed work.

The proposed technical studies will provide the information required to prepare a detailed business case against which the viability of the project will be fully assessed.

Given the scale of the budget 'gap' that the Council is faced with over the next few years, the business case will also seek to maximise the rate of return from any subsequent investment (should the project proceed) whilst balancing this against the Council's wider aspirations for economic growth, thus supporting the Council's move to self sufficiency.

Risk

At this stage of the project's development the Council's exposure is for the most part limited to the cost of undertaking the technical studies detailed in this report. In addition there is also some minor reputational risk, but this can be adequately mitigated via the application of the Council's project management protocols.

Looking to the future, the successful delivery of the proposed Centre (should the Council determine to proceed) is subject to a number of potential risks. These include:

- A shift in market conditions leading to a slow down in the delivery of energy related projects in the Southern North Sea;
- An inability to secure the capital funding necessary to fund delivery;
- An inability to engage with businesses in the target sectors to occupy space within the Centre;
- Failure to secure tenants in sufficient number or sufficient rental income to cover project costs;
- Failure to meet the overall objective(s) identified in this report and/or failure to secure the economic growth anticipated;
- The capacity within the Council to effectively manage the delivery of the Centre; and
- A shift in corporate priorities and policy objectives following political change (national and local).

The Regeneration, Inward Investment, and Growth Team will identify, control, and mitigate these risks as part of its administrative and management function and will develop a risk register to identify, track, and report on risks as part of the Team's project management function.

LEGAL

Since 1972 Local Government has been able to under a range of powers provide financial assistance to external businesses to promote economic development in their area, the current and widest power is contained within the General Power of Competence under the Localism Act 2011.

Section 120(1) of Local Government Act 1972 provides for the Council to acquire land either within or outside the District for any purpose within that or any other Act or for the benefit, improvement or development of the area.

In this case property acquisition is proposed pursuant to the Council's Economic Development Strategy. This is likely to benefit the District in line with the statutory power if it can be achieved.

Section 123(1) Local Government Act 1972 indicates that, a local authority may dispose of land held by it in any way it wishes so long as (section 123 (2)) the land is disposed for a consideration not less than the best that can reasonably be obtained.

Ordinarily the actions recommended in this report are the responsibility of individual portfolio holders. However, given the crosscutting nature of the proposals and the significance of the project, the Portfolio Holders have determined a collective decision by Cabinet would be preferable.

OTHER IMPLICATIONS

Consideration has been given to the implications of the proposed recommendations in respect of: Crime and Disorder; Equality and Diversity; Health Inequalities; Area or Ward Affected; Consultation and Public Engagement; and any significant issues are set out below:

Evidence suggests that there is a direct link between economic prosperity and social inequality. The proposed Innovation Centre seeks to improve the economic performance and vitality of the District by creating growth in the economy. In so doing the Centre will help secure the economic opportunities that exist within Harwich (and more widely across the District) whilst indirectly tackling the broad range of deprivations and inequalities prevalent in the area.

Area or Ward Affected

The proposed Centre would be located within the electoral Ward of Harwich East, but its activity would also support maritime, engineering, and logistical activity in the electoral Ward of Harwich East Central. By virtue of the Centre's proposed business support component, the facility would also reach-out to businesses elsewhere in the District, providing information, advice and guidance in an effort to help grow Tendring's business base.

Consultation and Public Engagement

On-going marketing and communication with the business community will be an essential ingredient if the Council is to secure the success of the proposed Innovation Centre.

PART 3 – SUPPORTING INFORMATION

BACKGROUND

In November 2013 Cabinet approved the adoption of the Council's Economic Development Strategy. The Strategy promotes a range of targeted interventions in key locations, and for Harwich, focusses on the growth opportunities afforded the district by the offshore energy sector.

The Strategy promotes the development of a physical hub that could incorporate training and skills support, incubation space for new businesses, as well as providing soft-landing space for international companies seeking to establish a presence in the UK.

The Strategy contends that such a facility could enable Harwich to build upon its strengths to become an important location serving the requirements of the UK's offshore energy market.

To examine this opportunity in more detail Essex County Council commissioned Nautilus Associates Ltd in December 2013 (against a specification prepared by Tendring District Council). The Nautilus Associates study drew on desk-based research and undertook consultation with over 104 sector organisations, business support providers, property agents, business representatives, land owners, and operators of existing enterprise centres in the East of England.

The study found that there was demand for an Innovation Centre from businesses working in the: marine; ports and logistics; engineering; and offshore renewables sectors and from the range of supporting industries serving these sectors.

The study also confirmed that consultees/potential users of the proposed facility would want such a Centre to be located in Harwich, in close proximity to the port and to existing businesses, and to the supply chain(s) businesses serving the target sectors. Consultees also identified the need for sufficient car parking, good road/rail links and access to international airports.

The industry engagement identified that the greatest requirements amongst potential occupiers were for high specification office type accommodation, with access to conferencing, meeting and training facilities. Respondents expected that such a Centre would have good broadband connectivity, communications and IT facilities, and that the physical space would be flexible and able to accommodate a range of unit sizes and space requirements. The study also identified a lesser, but still significant, demand for workshop/fabrication space.

The study concluded that the creation of an appropriately focussed Innovation Centre would strongly support Harwich in strengthening its position as a global centre of excellence in offshore renewables and marine engineering.

The study also identified that there was a gap in the supply of accommodation and support infrastructure necessary to establish such a Centre in Harwich and recommended that the provision of such a facility should be modelled on the delivery of sector specific and fully serviced office space (similar to that provided at OrbisEnergy in Lowestoft).

Shortly after the 2013/14 Nautilus Associates study was concluded, the offshore wind energy market contracted whilst Government and the major energy providers tussled over

planning and licencing arrangements and specifically the price at which generated energy would be sold to the market.

This period of contraction generated significant uncertainty in the offshore renewables market, and this in turn led Essex and Tendring Councils to put on hold their plans to deliver an innovation facility in Harwich.

By mid-2015 it became clear that both Scottish Power Renewables (a subsidiary of Scottish & Southern Energy - SSE) and RWE were intending to pursue wind farm developments at designated locations within the East Anglia Offshore cluster of sites (East Anglia One) and at Galloper, and as a consequence the partners resolved to refresh the 2013/14 Demand and Need Study, and to look in more detail at the opportunities afforded by Mermaid House, as a potential location for an Innovation Centre in Harwich.

In November 2015 Nautilus were again commissioned by Essex County Council to refresh the 2013/14 Demand and Need Study and to undertake a high level assessment of Mermaid House in order to determine its suitability as a venue for an Innovation Centre.

The study was based on a comprehensive and targeted industry consultation in which circa 200 companies currently active in the target sectors were invited to participate. Potential facilities management providers were also consulted in order to tap into their experience in operating innovation centres of the type under investigation.

As outlined above, the consultation feedback indicates there is strong demand for a fully serviced managed innovation centre in Harwich, incorporating facilities including: high specification private office space; meeting rooms; kitchen areas; break-out areas; and co-working office space. Adequate car parking and good quality internet connections were also identified as important features of a successful centre.

As part of the study, 26 companies expressed a firm interest in securing space within a managed office facility located in Harwich. Respondents identified a work space requirement to support up to 87 employees.

Nautilus Associates suggest that the refurbishment of Mermaid House could cost circa £1.3M and estimate that the property could earn an annual rental income of £180K.

This investment would be expected to generate a net lettable floor area of 3,400sqft/316m^2 of lettable office space, 2,200sqft/204m^2 of lettable co-working space and 1,200 sqft/111m^2 of meeting space.

A space of 2,200 sqft/204m^2 would allow for a minimum of 35 desks, providing a potential annual income of £67,200. Furthermore, Nautilus Associates estimate that the office space would generate an annual income of £93,500 and that the meeting rooms could earn an additional income of £19,500 (assuming these are utilised for 50% of the year).

After costs (estimated at £71,000) and assuming 90% occupancy with office rental income of £144,630, co-working income of £60,480 and conferencing income of £19,500, this arrangement could create an annual return of circa £83,130 (excluding business rates voids).

Best practice in the design of similar facilities elsewhere in the region suggests that an innovation centre at Mermaid House could generate 58 jobs at 100% occupancy, and 46

jobs at 80% occupancy. This assumes that 70% of the gross building area is converted to net lettable space during the refurbishment. This evidence suggests that the demand identified in the study could outstrip the building's capacity in the medium to long term.

Nautilus Associates are firmly of the view that there is significant potential to develop the existing offshore renewable engineering supply chain in Harwich, in much the same way to that which has taken place in Lowestoft. This would help strengthen the East of England's position within the offshore renewables and marine sectors. The Harwich and Lowestoft clusters could then look at joint working and develop projects that could be beneficial to both areas.

Proposals for the Innovation Centre correspond strongly with the designation conferred on Harwich in 2014 as a Centre of Offshore Renewable Engineering (CORE) and on the areas designation as an Assisted Area.

Should the project proceed, businesses occupying the Centre could be eligible for financial support via the Council's SME Growth Fund. The Fund therefore provides an added incentive for businesses to locate in Harwich and to utilise the facilities provided at the proposed Centre.

CURRENT POSITION

Essex County Council in partnership with Tendring District Council commissioned Nautilus Associates to report on options to develop an Innovation Centre in Harwich. Their report is attached at A.2 Appendix A.

The Nautilus Associates report identifies the potential to develop such a facility in Mermaid House, a building currently owned by Trinity House.

Trinity House has indicated its willingness to consider disposal of all or part of Mermaid House to the Council for that purpose.

Trinity House has proposed a Memorandum of Understanding that will enable it to suspend its marketing of the building pending the partners' development of a detailed business case, to inform the partners' investment decision(s). A draft Memorandum of Understanding is attached at A.2 Appendix B.

Officers have completed an initial assessment and conclude that an acquisition may be feasible, subject to appropriate investigations and the preparation of a detailed business case. A copy of the assessment is attached at A.2 Appendix C.

FURTHER HEADINGS RELEVANT TO THE REPORT

None

BACKGROUND PAPERS FOR THE DECISION

None

APPENDICES

A.2 Appendix A – Harwich Innovation Centre – Nautilus Associates, January 2016
A.2 Appendix B – Draft Memorandum of Understanding
A.2 Appendix C – Assessment of Acquisition Feasibility

Harwich Innovation Centre

Market Assessment / Demand and Need Study

January 2016

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Client:	Essex County Council
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Executive Summary

This report, commissioned by Essex County Council, presents an assessment of demand and need for the proposed Harwich Innovation Centre. It outlines the market opportunity and clarity of business and supply chain support needs which could encourage investment and growth across the marine, ports and logistics and offshore renewables and engineering sectors.

The research complements the initial feasibility study completed in 2014 by Nautilus Associates in which a clear demand for the development of a sector focussed facility in Harwich was established. This report establishes if demand for the centre still exists, in particular in respect of recent industry announcements affecting the offshore renewables and marine sectors in the East of England.

Essex County and Tendring District Councils have selected Mermaid House as its preferred location for the Harwich Innovation Centre. Mermaid House, currently owned by Trinity House, is located on The Quay in Harwich and within easy access of the port. The property offers a gross internal area of 9,800sqft/910m^2 (subject to survey) and with refurbishment could realise a **net lettable space** of 6,800 sqft/634m^2.

The conclusions show significant demand for the proposed Harwich Innovation Centre, potentially exceeding supply in the medium to long term. Based on consultation feedback, **26 unique companies expressed a firm interest in tenancy, 18 physical and an additional 8 beginning with a virtual tenancy**. These companies alone suggest a requirement to support up to 87 employees working from the centre. Companies include offshore wind developers and operators and supply chain companies of mixed size.

1. Market Opportunity for Harwich and the Wider Region

Based on research undertaken in September 2015, capital expenditure on energy and major infrastructure projects between now and 2020 is currently forecast to total more than £159bn nationally, with around £18.5bn (see Figure 1) in, and off the coasts of, Essex and the East of England.

The most significant subsectors are offshore wind, offshore oil and gas, and decommissioning. The transport sector is also expected to receive significant investment in the short term, including in the ports of Harwich and Felixstowe, which will positively impact the energy, engineering and ports and logistics sectors.

There have been delays in the development of these major projects, due largely to a combination of planning, consenting, investment, and security of Government policy. This has led to delays of up to 2-3 years for some projects.

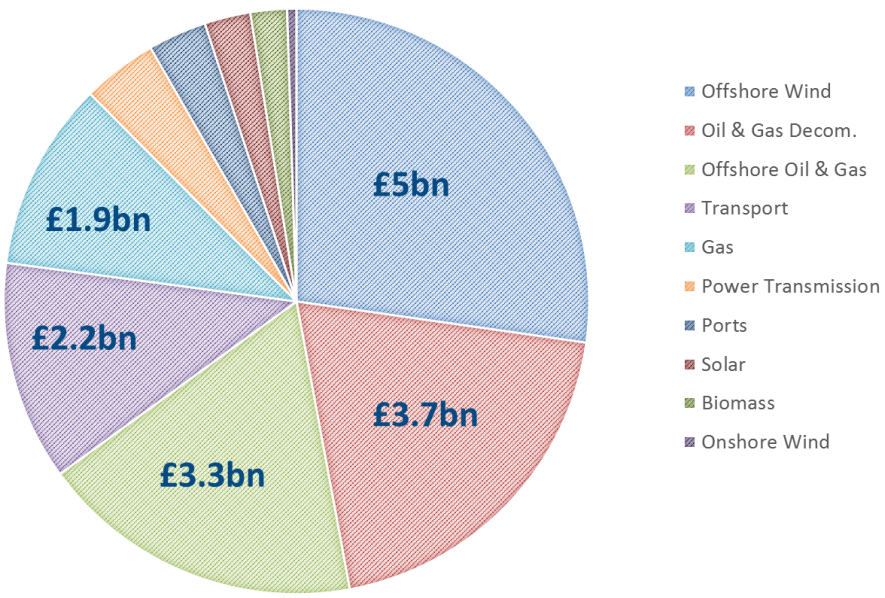


Figure 1: Forecast Investment in Energy Infrastructure projects in the East of England

However, this presents the opportunity to capitalise on these delays and capture the economic benefits for the region in the future. The investment forecasts demonstrate significant opportunities available up to 2020, and in the early life of the proposed innovation centre.

Beyond 2020, considerable further investment is expected in the region in offshore wind and nuclear projects which will continue to support the supply chain and fuel demand for the innovation centre and associated facilities into the medium to long term future.

East Anglia has recently welcomed announcements from Scottish Power Renewables who will be establishing their operations and maintenance base for the 714MW East Anglia ONE offshore wind farm at Lowestoft, Suffolk. Lowestoft has also been selected as the construction support base for RWE's 340MW Galloper offshore wind farm. These two facilities will join the existing Greater Gabbard offshore wind operations base at Lowestoft, which also served as the construction support base for the assembly and installation of that project.

Harwich was selected as the assembly and installation port for the Greater Gabbard project where all 140 wind turbines and associated components were marshalled with jack-up installation vessels managing offshore construction from Harwich working in tandem with Lowestoft-based operations. There remain significant opportunities for Harwich, offered by the long-term operation and maintenance (O&M) activities for the Galloper offshore wind farm; assembly and installation support to East Anglia ONE; and the installation and O&M bases for future regional projects including those in the East Anglia Offshore Wind phases 2 to 6, where no major contracts, including port operations, have yet been awarded.

Harwich remains an ideal location to support activities elsewhere in the region, and a significant contender to be awarded as the central base for forthcoming installation and O&M activities for future projects. The deep water port is in close proximity to these project sites, has a well-established manufacturing supply chain, a mature port and logistics industry, and access to a wide skills base. The port has already demonstrated its ability to service the market as the installation port for the Gunfleet Sands wind farm and the London Array and Greater Gabbard projects.

Based on anecdotal feedback from Hutchison Port Holdings (HPH) in relation to future activity at Harwich, they see the single most significant future opportunity is offshore energy, specifically offshore wind and oil & gas decommissioning projects. They estimate that Ro-Ro, Liquid & Dry Bulk, and general cargo will continue on a "steady-state" scenario. Longer-term, the port's strategy is to invest in sectors where ancillary services are required in addition to vessel movements within the port, such as warehousing, lay-down and onshore logistics, all of which provide additional revenue streams.

2. Demand for a Harwich Innovation Centre

This demand and need assessment for the Harwich Innovation Centre is based on a comprehensive and targeted industry consultation in which approximately 200 companies, currently active in the target sectors in the area, were invited to take part. Potential management operators were also engaged in the consultation and their experience of delivering support in the region and recommendations for management of the future centre are included. The demand and need work included detailed feedback from 25% of these stakeholders and presents responses from 57 businesses.

The consultation feedback indicates there is strong demand in the sectors for a fully serviced managed innovation centre incorporating facilities including high specification private office space: meeting rooms;

kitchen areas; breakout areas; and co-working office space. Adequate car parking and good quality internet connections were also noted as important features of the proposed centre.

The management of the centre should include a shared and manned reception offering administration services including telephone reception and forwarding of mail. The centre should be secure, and allow tenants and users 24-hour access to their office facilities.

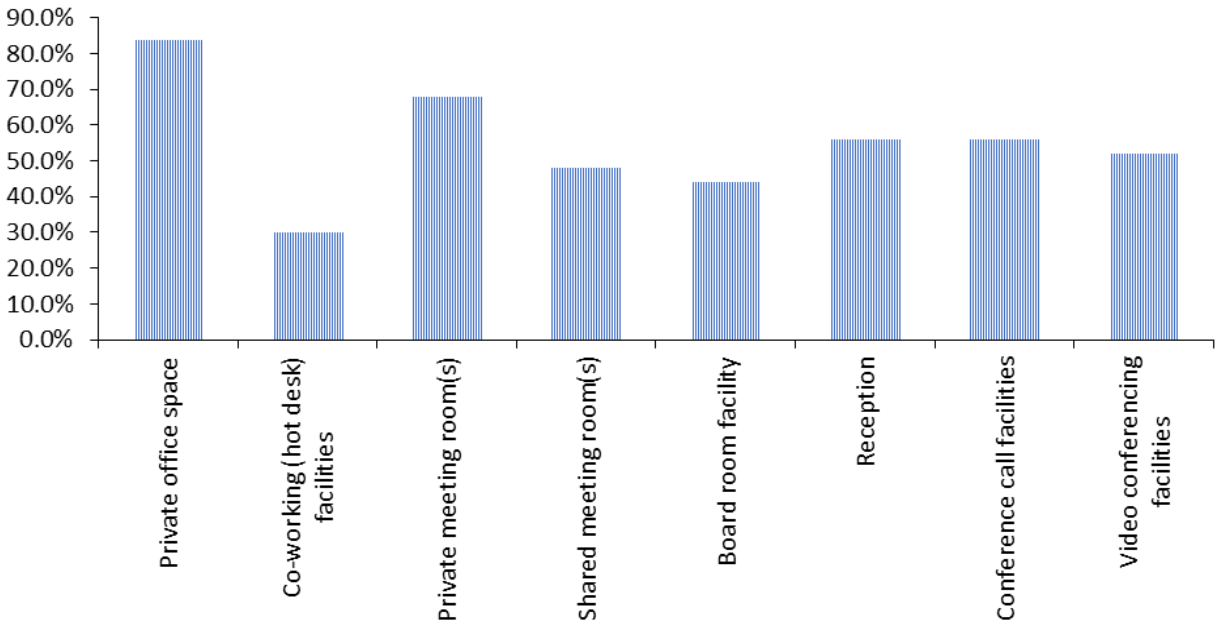


Figure 2: Chart indicating the type of office facilities required by potential users of Harwich Innovation Centre

An important feature of the centre should be the provision of added value services, including sector focussed business support services. This can be provided on site or via a referral service, however, the consultation indicated it should be visible and accessible to users when and where they need support.

18 companies expressed a firm interest in physical tenancy, with over half suggesting a requirement for space within the next 6-12 months. Amongst these companies, the feedback suggests there is a requirement to accommodate in the region of 87 employees working from the site. In addition to this pipeline of potential occupiers, **20 respondents expressed an interest in a virtual tenancy at the centre, and 35 stated they would use meeting rooms on site, or access the business support services,** should they be available through the Centre.

3. Proposed Harwich Innovation Centre

A successful innovation centre should incorporate private office space, meeting rooms, break-out and networking areas and co-working space, and Mermaid House could provide this with refurbishment and redesign of the internal lay-out and fit out. By converting the ground floor into a new reception area and lettable private office space, the first floor can be converted into further office space, meeting room(s) and a large open plan co-working area.

Indicative high level building costs for this type of refurbishment are estimated to be **£1,229,000** and could earn an annual potential rental income of **£180,200 (7% rental yield).**

This would be expected to generate a net lettable floor area of 3,400 sqft/316 m^2 of lettable office space; 2,200 sqft/204 m^2 of lettable co-working space and 1,200 sqft/111 m^2 of meeting space.

In a space of 2,200 sqft/204m2, this would allow for a minimum of 35 desks providing a potential annual income of **£67,200**. Furthermore, the office space would generate an annual income of **£93,500** and the meeting rooms could earn an additional annual income of **£19,500**.

According to best practice in the design and management of similar facilities elsewhere in the region, development of an innovation centre at Mermaid House **could generate a significant 58 jobs** at 100% occupancy, and 46 jobs at 80% occupancy. This assumes the average of 70% of the gross building area is converted to net lettable space during the refurbishment. This evidence suggests the initial demand as outlined in this study could outstrip the buildings capacity in the medium to long term.

There is the significant potential to develop the existing offshore renewable engineering supply chain in Harwich in a similar way to that which has taken place in Lowestoft. This would help to strengthen the East of England's position within the offshore renewable and marine sectors. The Harwich and Lowestoft clusters could then look at joint working and projects that could be beneficial to both areas.

4. Recommendations

Nautilus recommend that local government, sector support organisations, and port operators work quickly to demonstrate and promote their capabilities in the targeted sectors and support the supply chain in gaining future work and investment in the area.

Essex County Council and Tendring District Council should continue the planning and development of the Harwich Innovation Centre to support the region's offer and provide a centre, around which the supply chain can cluster. The next steps in the development of the project are detailed below.

1. **Develop a detailed Business Case and Project Implementation Plan (PIP)** for the redevelopment of Mermaid House.
2. **Identify a management model for the centre**, including a contractual relationship between building owners, local councils and any third party management operator.
3. **Identify and secure funding** to deliver the redevelopment of Mermaid House.
4. **Appoint a project manager**, recruited externally or from in-house.
5. **Develop a coordinated marketing and communication strategy.**
6. **Work quickly to capitalise on the present opportunities.** The target sectors are moving fast and the availability of facilities in coastal and port locations will help companies define where they choose to locate based on the availability of appropriate facilities.

Contents

1 Introduction and Background

In March 2014, Nautilus completed a Feasibility Study for Tendring District Council into the industry demand for an innovation and incubation hub in Harwich. This study considered the potential demand and business case for an Energy sector focused Innovation Centre and identified potential sites for such a development.

The initial feasibility research suggested that there was a clear demand for the development of such a centre in Harwich to support the offshore engineering, marine, logistics and offshore renewable energy sectors. With evidence from this research, Essex County Council and Tendring District Council have since considered the options further and have identified a vacant property in a prominent location in Harwich that could be appropriate for such a centre.

This study, commissioned by Essex County Council, builds on the earlier feasibility work, presenting an updated and detailed demand and need assessment for the proposed Harwich Innovation Centre, including the specific features that such a centre should aspire to and added value services prospective tenants and users would expect from such a centre.

1.1 Summary of the 2014 Feasibility Study

The feasibility study completed in 2014 drew on desk-based research and consultation with over 104 stakeholders including industry organisations, businesses and support providers, property agents, business representatives, landowners and enterprise centre operators.

The study found there was a demand for an innovation and incubation centre focussed on marine, ports and logistics, and offshore renewables and engineering, supporting industries within these sectors. The preferred location for potential users of the facility would be at Harwich near the port, close to existing businesses and the supply chain, with ample car parking, good road/rail links and access to international airports.

The extensive industry engagement identified that the greatest requirements amongst potential occupiers were for high specification office type accommodation, with access to conferencing, meeting and training facilities. Such a centre would be required to have good broadband connectivity, communications and IT facilities, and the physical space would need to be flexible and able to accommodate a range of unit sizes and space requirements. The research also suggested a lesser, but still significant, demand for workshop/fabrication space.

The report found that a number of potential occupiers would consider taking space should a sector-focussed centre become available in Harwich. This included various larger companies in the offshore energy sector with requirements for large sites, close to port facilities, to support their operations. These include top tier companies involved in the offshore wind supply chain from development stages, through manufacture to ongoing asset operation and maintenance (O&M).

Such companies would be valuable occupiers within any centre, potentially representing anchor clients attracting smaller companies to cluster in the centre and its locality. It was highlighted that the locational decisions of these companies would be based on proximity to operational assets and access to skilled labour and a supportive supply chain.

The study concluded that the creation of an appropriately focussed innovation centre would strongly support Harwich in strengthening its position as a global centre of excellence in offshore renewables and

marine engineering. Such a centre would be a clear indication to industry that Harwich and Tendring are operationally ready for the opportunities ahead. It would provide the hard and softer business support infrastructure to position Harwich to capture and embrace the significant opportunities in the key target sectors, where Harwich already has competitive strengths.

Following an assessment of the existing provisions and possible operational models, the 2014 feasibility research also identified that there was a gap in the supply of accommodation and support infrastructure needed for cluster development. It was recommended that the model adopted for the new centre should be a combination of sector specific and fully serviced office space (e.g. similar to that of OrbisEnergy at Lowestoft). This provides tangible on-site support for the tenant companies and gives them the best chance of growth and development. At the time of the study a number of potential operators engaged through the research highlighted their interest in supporting the development of a centre in Harwich and would wish to be involved in exploratory discussions should the project develop further.

1.2 The Brief

Building on the initial feasibility study, Essex County and Tendring District Councils have commissioned this report to:

- Provide an updated assessment of market forecasts and project opportunity pipeline, including opportunities in the marine, ports and logistics activity in addition to energy and offshore renewables.
- Assuming Mermaid House as a location for the Centre, present an updated demand and need assessment (drawing on the completion of a stakeholder consultation) including options on size/type of potential unit and any added value services that could be developed, for example co-working, virtual tenancy solutions, conferencing/meeting rooms, specialist industry and supply chain support and access to grants and finance.
- Based on this research and feedback from the stakeholder consultation, to outline a suitable operational model to deliver and support tenancy and added-value service provision.

It is out with the scope of this commission to provide the following;

- Specific details on the potential lease arrangements with Trinity House, the current owners of the premises.
- Internal layout plans for the proposed facility and detailed specific costs for the refurbishment of Mermaid House.
- Detailed financial forecast models.

Whilst these exclusions from the brief are noted, to aid the discussion on financial sustainability of the proposed innovation and incubation centre, it is useful to provide some high level assumptions to address these points.

The study approach was largely desk based, supported by industry consultation via an online questionnaire and face-to-face/telephone interviews with a select range of targeted companies who had previously expressed an interest in supporting the development of a Harwich Innovation Centre.

1.3 The Premises: Mermaid House

Essex County and Tendring District Councils have selected Mermaid House as an appropriate location for the Harwich Innovation Centre.

Mermaid House is located on The Quay in Harwich, Essex, within the district of Tendring District Council (See Figure 3 below). The total site area is less than 0.42acres/0.17Ha, with the building itself providing a **gross internal area** in the region of 9,800sqft/ 910m^2 (subject to survey). Current marketing information on Mermaid House, notes the **net internal area** as 7,835 sqft/728m^2; with refurbishment and redevelopment, Nautilus estimates a **net lettable area** greater than 6,800 sqft/634m^{2}is obtainable.

The size of the facility at Mermaid House is at the lower end of the spatial requirements recommended in the 2014 feasibility study. However, the refurbishment of the building into an innovation centre could offer an important element in a broader portfolio of facilities, perhaps in close proximity to one another, that could be built on in the longer term to support the areas' offer as a hub for marine, logistics, offshore renewables and engineering with a range of innovation infrastructure at additional and more bespoke facilities to suit the needs of these sectors.

Figure 3: Site Location of Mermaid House[1]

[1] Map data © 2014 Google Imagery © 2014 DigitalGlobe, Getmapping plc, Inforterra Ltd & Bluesky

2 Market Analysis and Opportunities for Harwich

This report examines the prerequisite for the proposed Innovation Centre for marine, ports and logistics, and offshore energy and engineering sectors in Harwich by looking at the market opportunities available within, and off the coasts of the East of England. There is no reason why businesses located within Harwich and the surrounding areas could not capitalise on these opportunities. These sectors have played a historic role in the economy in the East of England and Harwich, and these marine and maritime sectors are currently considered priority areas for development in Harwich and the wider region, with the potential to bring considerable economic benefits, employment and inward investment to the area.

Within the Essex and Tendring economic growth plans, the councils' highlight aims for Harwich and the wider county to build upon these strengths to become a major hub for ports and logistics and the offshore renewable energy sector. There is also an aspiration to support Essex businesses to compete in worldwide markets and attract investment – potential which can be realised with access to the right finance and sector support.

The energy sector is an important feature of the regional economy. The East of England region has a strong history in the offshore oil and gas sector and now sits at the heart of the world's largest market for offshore wind. There is longer term potential for plans for the storage of gas and captured carbon in the Southern North Sea, and nuclear power facilities are being decommissioned with a further two new sites in planning/early stage development. In addition, other onshore energy subsectors are active in the region including solar, onshore wind, and a growing bioenergy market in addition to developments in the ports and logistics sectors.

2.1 Methodology for the Forecast Analysis

To forecast the capital investment in the energy, transport, and port related sectors to 2020, the pipeline of significant infrastructure development projects in the UK and the East of England have been analysed. This research has sought to identify projects in the following sectors;

- Energy; including the subsectors Oil & Gas, Carbon Capture and Storage (CCS), Marine (Wave and Tidal), Wind, other Power Generation, and related projects such as Power transmission projects.
- Transport; Transport and Port infrastructure projects.

To keep the analysis to a sensible scale, only significant energy, transport and port infrastructure projects were selected for inclusion. The data collected includes projects that meet the following criteria;

- Projects in the East of England with a capital value of greater than £5m
- Projects in the United Kingdom with a capital value of greater than £25m

Over 300 individual projects in the development pipeline have been charted and categorised within the analysis below according to their location, value of capital expenditure and subsector or technology type. Capital values have been collected, when possible, from the developer. Otherwise, capital values have been estimated in accordance with authoritative sources (such as Department of Energy and Climate Change's Electricity Generation Costing Report). In some cases, where it has not been possible to produce individual estimates for the projects, particularly regarding Upstream Oil & Gas and Power Transmission, a mean value of all known project costs in the relevant subsector has been applied.

Capital investment forecasts in energy, transport and port-related infrastructure projects in the East of England, offer a number of opportunities to 2020. This includes:

- **£18.5bn investment planned in the East of England, with a further**
- **£158.5bn investment planned in the UK**

The 2014 feasibility study outlined forecast investment in energy, transport and port infrastructure projects in the UK and in the rest of Europe out to 2030. In this study, the investment forecasts focus on expected significant infrastructure projects within these sectors in the next five years. The short-term focus indicates any project investment that will impact the target sectors in the initial lifetime of the proposed innovation centre and takes account of the projects that are likely to impact companies' growth and locational plans during this time.

2.2 Size of the Opportunity in the UK to 2020

In the UK there is £159bn of capital investment in energy, transport and port infrastructure projects forecast over the next four years (Table 1).

Subsector/Technology Type	Projected UK CAPEX (£m)	% of total CAPEX
Offshore Oil & Gas	45,152	28.5%
Nuclear	26,814	16.9%
Offshore Wind	21,277	13.4%
Gas	9,890	6.2%
Carbon Capture & Storage	9,640	6.1%
Transport	9,283	5.9%
Power Transmission	8,414	5.3%
Biomass	8,276	5.2%
Oil & Gas Decom.	7,340	4.6%
Onshore Wind	7,047	4.5%
Ports	2,688	1.7%
Tidal	1,261	0.8%
Solar	1,202	0.8%
Wave	217	0.1%
Total	**158,500**	-

Table 1: Forecast Investment in Energy, Transport and Port Infrastructure Projects, in the UK [capital value >£25m per project]

The offshore oil and gas subsector offers the most significant opportunities in the UK, with a predicted capital investment of £45bn or 28% of the total potential investment. As shown in Figure 4, demonstrating the project expenditure per year, the subsector was expected to have a peak in investment in 2015 (of approx. £9bn throughout the year) and again in 2017 (approx. £20bn) after which data suggests capital expenditure will fall quickly and tail off to zero by 2020.

Investment in nuclear power is expected to make up 17% of the total capital expenditure on energy, transport and port infrastructure projects forecast for development in the UK up to 2020. Expenditure in this subsector is expected to begin in 2017, building to a peak of £10.8bn in 2020.

Investment in offshore wind is also expected to be significant for the UK to 2020. Capital expenditure, in the development of 15 offshore wind projects in the next five years, is estimated to total over £21bn or 13% of the total investment capital. Consent has already been authorised for 9 of these projects, including three which are located off the East of England's coast (further details below).

There have been delays in the development of these major projects, due largely to a combination of planning/consenting, investment, and security of Government policy. This has led to delays of around 2-3 years for some projects. However, this presents Harwich with an enormous opportunity to capitalise on these delays and capture the economic benefits for Tendring district and Essex in the future.

Transport and port sectors are also forecast to receive lesser but still significant investment in the UK to 2020 at approximately £9bn and £2.7bn respectively.

According to these investment forecasts, development expenditure in energy, transport and port infrastructure projects will peak in 2017 and 2018 with expected annual expenditure of £42.7bn and £37.4bn in those years. This expenditure may be an indication of possible pinch points in the availability of technically skilled engineering resource as developers seek to install capital projects in tandem.

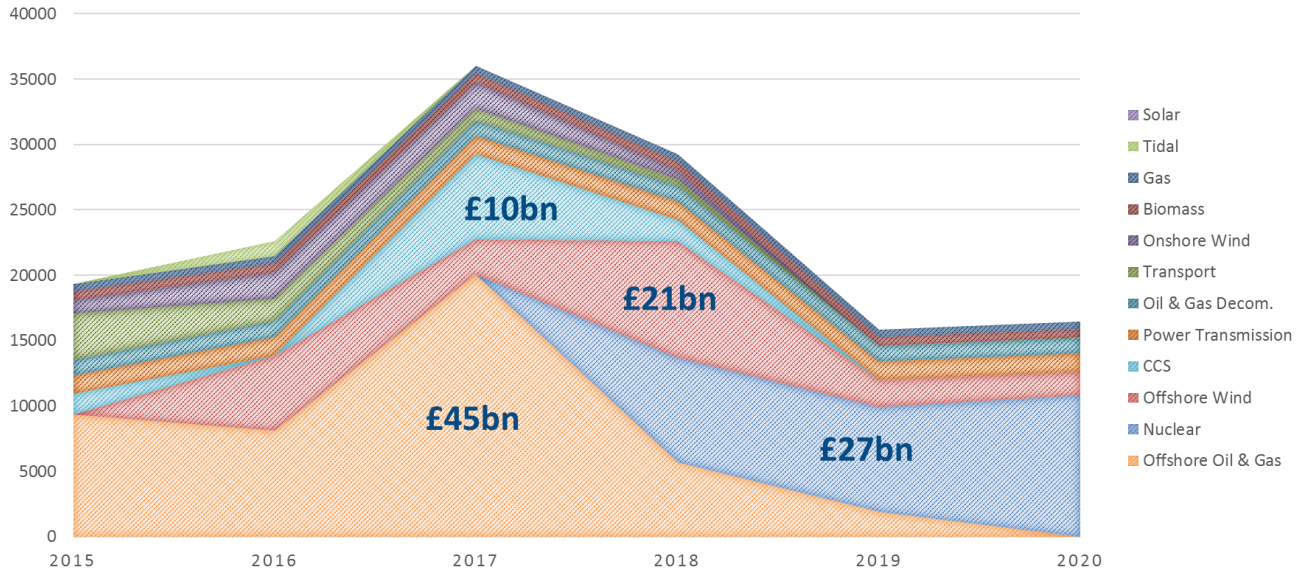


Figure 4: Forecast Capital Expenditure in Energy, Transport and Port Infrastructure in the UK

A detailed list of the projects that make up this assessment of capital investment in relevant offshore and transport sectors in the UK is presented at **Appendix C** of this report.

2.3 Size of the opportunity in the East of England to 2020

Across the East of England in the next five years, there is a forecast capital investment in local energy, transport and port related infrastructure of £18.5bn (Figure 5). This expenditure is of considerable value to the economy of the region, presenting a number of opportunities to supply chain companies located here and working in the region.

The greatest investment in the region in the coming five years will be in the offshore wind, oil and gas decommissioning, and offshore oil and gas projects, representing expected capital expenditure of £5bn (27%) and £3.6bn (20%) and £3.3bn (18%) respectively.

Transport and port sectors are also forecast to receive significant capital investments in the East of England to 2020 to a value of £2.2bn (12%) and £600m (3%) respectively. These forecasts currently assume the development of Bathside Bay in Harwich with investment plans of c.£300m and construction beginning prior to 2020. Whilst this is correct based on public information currently available, discussions with planning officials suggest it is unlikely this project will be realised within this time frame following ongoing negotiations between the developer and planning authorities.

There are no expected CCS projects, wave and tidal energy, or nuclear power in the East of England above the value of £5m in the pipeline in the next five years. It is important to note that these capital investment forecasts do not include the significant new nuclear development at Sizewell C in Suffolk and Bradwell B in Essex as these projects, still in their planning phase, will not be developed until after 2020. Sizewell C alone will have a capacity of 3.2GW and will require in excess of £14bn capital expenditure in the region. Subject to Final Investment Decision, it is not anticipated to begin construction on site until 2021 at the earliest.

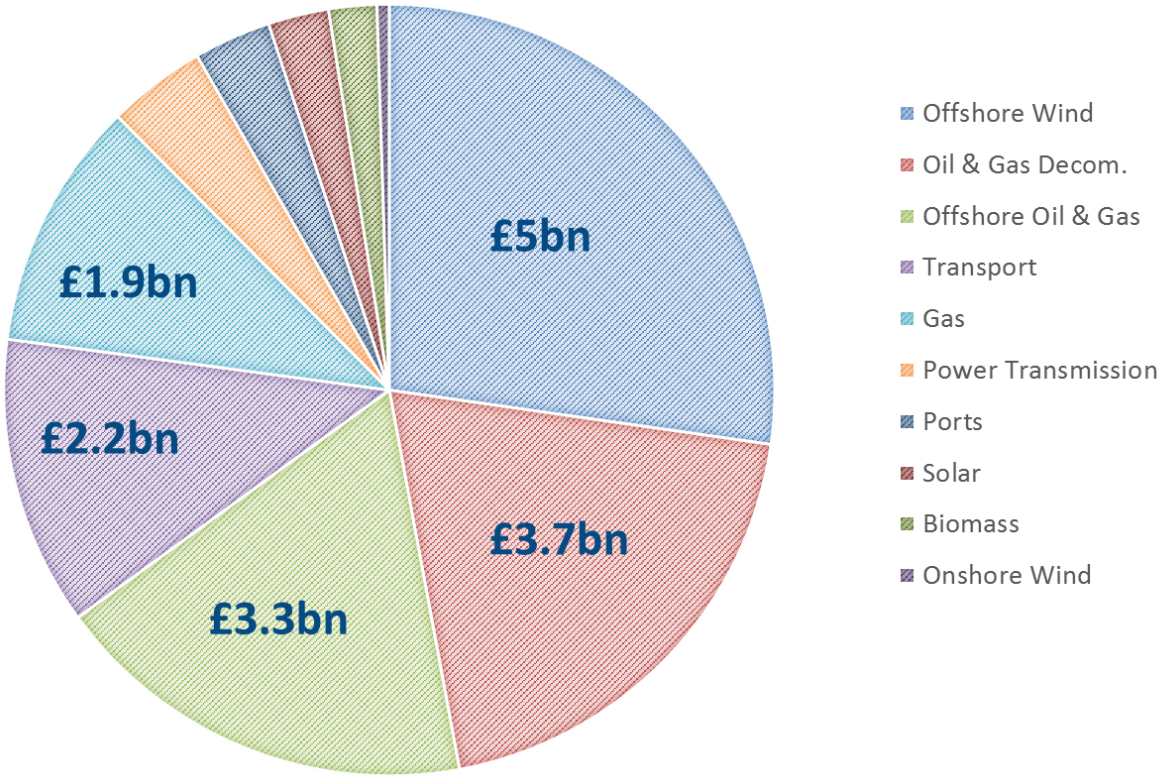


Figure 5: Forecast Investment in Energy, Transport and Port Infrastructure projects in the East of England.

2.3.1 Offshore Wind

The £5,044m forecast capital expenditure in the offshore wind subsector until 2020 will be invested in the development of three offshore wind developments; East Anglia One, Galloper Offshore Wind Farm and the Dudgeon Offshore Wind project.

The most significant of these developments, the East Anglia One project requiring a capital investment of £2bn, will generate 714MW of renewable energy from 102 turbines. The project is part of a larger development zone containing six individual offshore wind projects, the remainder of which are in the planning stage and will be developed post-2020.

£5bn

Investment in Offshore Wind Projects

The Galloper Offshore Wind Farm and the Dudgeon projects are also expected to be developed by 2020, providing an additional capacity of 336MW (from 56 turbines) and 402MW (67 turbines) respectively.

All three of these developments have received planning consent, and will begin construction from 2016 with all projects expected to be fully operational by 2020.

Project Name	Capacity (MW)	No of Turbines	Developer	Status	Capital Value (£m)	Construction Start	Commissioning
Dudgeon	402	67	Statoil/Statkraft	Pre-Construction	1500	2016	2017
East Anglia One	714	102	ScottishPower/ Vattenfall	Consent Authorised	2000	2018	2020
Galloper Wind Farm	336	56	RWE/SSE	Consent Authorised	1544	2017	2018

Table 2: Forecast Offshore Wind Project Pipeline to 2020

Harwich has a unique advantage for offshore wind with the proximity of its deep-water port to the planned offshore wind farms. Complementing the strengths of the Suffolk, Norfolk and Kent areas, the combination of a well-established manufacturing economy, a mature port and logistics industry and access to a wide skills base provide great opportunities for Harwich to attract investment from this sector.

Harwich offers an ideal location to support assembly, installation, operations and maintenance activities for new and existing wind farm projects. Harwich International Port has already demonstrated an existing supply chain and expertise in marine engineering operations that can support activities at the leading edge of delivering offshore wind. It was used for the installation of Gunfleet Sands wind farm and the Greater Gabbard project which remains the third largest wind farm in the world. More recently, it was the installation port for the first round of turbines for London Array, the world's largest operational wind farm. Brightlingsea was used to support the installation of the Gunfleet sands demonstration turbines, which are currently the largest capacity operational offshore wind turbines in the world.

2.3.2 Offshore Oil and Gas

North Sea oil and gas exploration has had a profound impact on the UK economy and continues to provide a secure source of home grown energy. In 2013, over £13bn was spent in the Southern North Sea (SNS)–a figure that is expected to increase over the coming years.

Owing to its proximity to sizeable gas fields in the North Sea, the East of England is an established hub for the oil and gas industry and a large base for major and international businesses. With a strong local workforce and vast relevant experience, the region has maintained its reputation as a national centre for offshore activity.

The SNS currently plays host to over 150 offshore gas assets. While the North Sea is now regarded by many as a mature province on a slow decline this has opened up other opportunities in areas such as advanced oil and gas recovery techniques and decommissioning.

Despite the current uncertain economic climate for oil and gas, analysts are still forecasting a capital expenditure investment of £3,310m in offshore oil and gas projects to 2020. This investment is expected in two offshore gas fields off of the region's coast – Cygnus and Platypus.

Whilst these developments are at the northern edge of the southern North Sea, they still offer opportunities for Harwich-based businesses who have experience of working in the offshore oil and gas sector or skills transferrable to the sector.

2.3.3 Oil and Gas Decommissioning

Decommissioning within the oil and gas industry is expected to cost £7.34 billion in the UK from now to 2020, 50% of which will be spent and invested off the coast of the East of England.

There are currently four gas field projects looking to decommission - Big Dotty; Dawn; Hewett; and Little Dotty; which make up this capital investment. There is limited experience in decommissioning projects so the expected total capital investment has been evenly distributed across the projects, each expected to require a capital investment of £917.5m. The developer for all of these projects will be ENI UK Limited.

Hundreds of oil and gas installations in the North Sea are scheduled for decommissioning by 2040 and some 470 installations will require decommissioning over the next 30 to 40 years.

Owing to its proximity to the gas fields in the SNS, complemented by its deep-water capabilities, suggests Harwich could be ideally positioned to capitalise on the decommissioning opportunity. Hutchisons, as port operators, recognise that offshore decommissioning is a significant opportunity for them to pursue.

2.3.4 Ports and Logistics

Within England the regional distribution of GVA contribution and employment is predominantly concentrated in the East of England, South East and the North West, jointly accounting for c.75% of direct GVA (Table 3). In the East of England, the sector is worth £1.3bn in GVA and supports 7,600 direct jobs.

	GVA (£million)					Employment				
	Direct	Indirect	Induced	Total	% of GVA	Direct	Indirect	Induced	Total	% of Employment
South West	220	470	380	1,080	**1.1%**	6,200	9,400	7,700	23,300	**1.0%**
South East	1,280	1,010	650	2,930	**1.5%**	15,600	20,100	12,900	48,700	**1.3%**
London	150	1,370	1,040	2,560	**0.9%**	18,300	27,300	20,900	66,500	**1.5%**
East of England	1,300	580	420	2,300	**1.9%**	7,600	11,500	8,400	27,500	**1.1%**
East Midlands	10	380	340	720	**0.8%**	200	7,600	6,700	14,500	**0.8%**
West Midlands	0	470	390	860	**0.9%**	0	9,400	7,800	17,200	**0.7%**
North West	1,280	610	510	2,400	**1.9%**	12,200	12,200	10,300	34,600	**1.1%**
Yorkshire and the Humber	480	420	390	1,280	**1.3%**	11,100	8,400	7,700	27,200	**1.2%**
North East	360	180	170	710	**1.7%**	6,500	3,600	3,400	13,500	**1.3%**
England	5,080	5,490	4,290	**14,840**	**1.3%**	77,700	109,500	85,800	**273,000**	**1.2%**
Wales	140	220	190	560	**1.2%**	2,600	4,500	3,800	10,900	**0.9%**
Northern Ireland	560	130	110	800	**2.7%**	10,500	2,600	2,200	15,300	**2.2%**
Scotland	1,960	470	400	2,830	**2.6%**	31,500	9,400	8,000	48,900	**2.1%**
United Kingdom	**7,740**	**6,300**	**5,000**	**19,040**		**118,200**	**126,100**	**100,000**	**344,300**	

Table 3: Regional impact of the UK ports industry {Source: The Economic Impact of the UK Maritime Services Sector: Ports, Oxford Economics.

Felixstowe, owned and operated by Hutchinson Port Holdings (HPH), is one of the most important deep water harbours in the UK. It handles over 40 percent of the UK's deep-sea container traffic and a substantial volume of cruise, ferry and ro-ro freight business, with some 17,000 commercial vessel movements per annum, including some of the world's largest container ships.

In 2014, Felixstowe was the busiest unitised main freight port, handling 2.6 million units, of which 92 per cent was Lo-Lo traffic, the remainder were non-freight units and Ro-Ro cargo such as passenger cars, vans and buses. Felixstowe handled the most Lo-Lo traffic compared to other UK major ports, with 2 out of every 5 Lo-Lo units handled by Felixstowe.

Harwich International Port, also owned by HPH, continues as one of the UK's leading multi-purpose passenger and freight ferry terminals and is long established as a natural gateway to Europe. In 2014, c.80% of all Harwich port's activities were Ro-Ro, with the remainder split broadly equally between Liquid Bulk, Dry Bulk and other General Cargo.

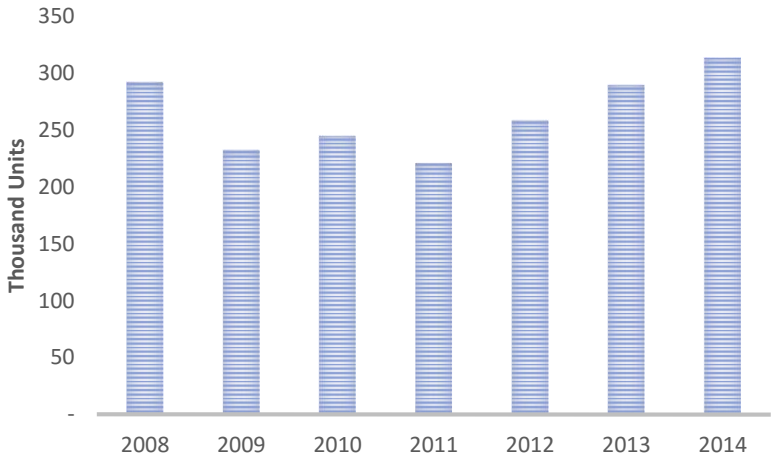


Figure 6: Trends in Main Freight Volumes handled by Harwich International Port 2008 - 2014

Figure 6 illustrates the historic trends of main freight volume handled by Harwich International Port. As can be seen, there was a decline in volume following the economic crash of 2008, however there has been a strong recovery from 2011 onwards to levels previously enjoyed at over 300,000 units.

Based on anecdotal feedback from HPH in relation to future activity at Harwich, they see the single most significant future opportunity as being offshore energy, specifically offshore wind and oil & gas decommissioning projects. They estimate that Ro-Ro, Liquid & Dry Bulk, and general cargo will continue on a "steady-state" scenario. Longer-term, the port's strategy is to invest in sectors where ancillary services are required in addition to vessel movements within the port, such as warehousing, lay-down and onshore logistics, all of which have the potential to provide additional revenue streams.

Despite Harwich's success in the logistics, and passenger freight industries in the past and the opportunities for the future, the sector and region are not without its challenges. Harwich has seen a decline in passenger ferry traffic in recent years. This is particularly marked by the closure of services between Harwich and Hamburg in Germany in 2002, Harwich and Cuxhaven in 2006, and most recently DFDS passenger ferry service between Harwich and Esbjerg in September 2014 which had been in service from the port since the 1880s. This decline in passenger levels is attributed to increasing competition from low cost and ultra-low cost airlines and exasperated by changing environmental regulation affecting both the cargo and ferry services, such as the introduction of new regulations in early 2015 requiring the use of low sulphur fuel, increasing the cost of fuel for service operators.

Plans remain in place to develop the Harwich port infrastructure further with a £300m Bathside Bay container terminal scheme which will continue to meet the increasing demand for future port capacity that

is essential to secure the UK's economic prosperity. The Harwich International Container Terminal (HICT) project will be located at Bathside Bay adjacent to Harwich International Port and should bring much-needed jobs and investment to the area when fully developed. The development is ideally located for North Sea freight and passenger traffic to and from Scandinavia and the Benelux countries, offering first class Lo-Lo, Ro-Ro, ferry, container and bulk operations.

Development of the Harwich International Container Terminal could generate over 700 new jobs directly and significantly more in indirect and induced employment across supporting industries and services. Based on results from our consultation, it was felt that Bathside Bay has the potential for "transformational growth" in Harwich, however, Hutchisons need to set out a clear plan for the timescales in developing the project. Whilst the Bathside Bay development was originally given the green light by the Secretary of State in March 2006, the time limit for the development has since been extended, meaning HPH has until 2021 to begin work.

In Tendring, the ports and logistics sectors provide around 1,700 jobs and is one of the district's greatest comparative sector strengths. Activity is concentrated around the Port in Harwich and to a much lesser extent at Brightlingsea and Mistley. Tendring District Council's Socio-Economic Baseline report [October 2013] suggests that there is strong potential for the sector, although this will be linked specifically to the fortunes of Harwich International Port.

More widely, the logistics sector in Essex accounts for approximately 1,800 firms, employing 17,800 people with an annual GVA of around £1.2bn[2]. Key locations for logistics activity are Thurrock, Southend, Stansted and Harwich.

A real strength of the logistics sector in Essex arises from innovative firms that are based in the sector, which contributes to the wider health of the Essex economy. Businesses in the sector were more likely than other sectors to have plans to enter new product/service areas/markets and to expand, and more likely to have made some form of capital investment in their Essex sites between 2013 – 2014.

12%, or £2,248m of the forecast capital investment in energy-related projects in the East of England, is expected in the transport subsector, including road and port development infrastructure projects.

These major port development and road infrastructure improvements will enable further and sustainable growth in the logistics sector as well as support for other related industrial sectors including, but not limited to, offshore renewables. Development of the Harwich Innovation Centre will provide the region with a focal point to raise the profile of the ports offer for offshore renewables and growth through the ports and logistics based supply chains.

2.3.5 Other Opportunities

Capital expenditure in gas generation projects in the East of England amounts to £1,933m to 2020. This is across four projects within the region, developing Combined Cycle Gas Turbines (CCGT) and Landfill Gas (Table 4), the largest project being in Tilbury, Essex.

[2] Economic Plan for Essex, April 2014

Project Name	Capacity (MW)	Sub-category	Location	Developer	Status	Capital Value (£m)
Kings Lynn B	981	CCGT	Kings Lynn	Centrica KL Ltd	Concept/Early Planning	598.41
Progress Power Station	299	CCGT	Eye Airfield	Progress Power Ltd	Consent Authorised	182.39
Tilbury C	1800	CCGT	Tilbury	RWE NPower plc	Concept/Early Planning	1098
Pitsea	25.37	Landfill Gas	Eastern	Energy Developments (UK) Ltd	Concept/Early Planning	54.0381

Table 4: Forecast Investment in Landfill Gas and CCGT Projects in the East of England to 2020.

Capital expenditure on power transmission projects is forecast to amount to £766m in the East of England to 2020 (Table 5).

Substation (Start Route)	Substation (End Route)	Status	Developer	Capital Value (£m)	Commissioning
Bramford Connection Project	Twinstead	Concept/Early Planning	National Grid	166.45	
East Anglia Offshore Windfarm Connection			National Grid	166.45	
King's Lynn B Power Station			National Grid	166.45	
Norwich Main	Bramford	Planning		266	2016

Table 5: Forecast Investment in Power Transmission Infrastructure Projects in the East of England to 2020

2.4 Summary of the opportunity for Harwich to 2020

In the East of England, major investment is planned in offshore wind, oil and gas decommissioning, and offshore oil and gas; all three sectors presenting significant economic, employment and local growth opportunities for marine and offshore engineering hubs on the East coast. These three energy subsectors represent 65% of the forecast investment in the East of England energy sector to 2020, with the most significant investment opportunities for the supply chain in Harwich being in supporting the installation and O&M activities of East Anglia One and Galloper offshore wind farms, the decommissioning of the four offshore gas sites, and the further development of the Cygnus and Platypus offshore oil and gas projects.

The development of related transport infrastructure, namely ports and road improvements, are also set to receive significant investment in the longer term, including potential investment in the Harwich International Container Port at Bathside Bay, and at the port of Felixstowe. These developments are significant in developing the ports and logistics and energy and offshore engineering sector further, and making the area more attractive to supply chain companies and further internal investment.

During Offshore Wind Week (16-20 November 2015), it was announced that the region will receive considerable investment as Scottish Power Renewables set up their central base for construction and long-term O&M for the East Anglia ONE offshore wind farm in the Suffolk town of Lowestoft. The port will also be the central construction base for RWE's Galloper offshore wind farm.

This is a key opportunity not just for Lowestoft but also signals opportunities for investment and work for the offshore engineering supply chain all along the East Coast. Whilst Lowestoft may be a primary hub for the activity, it is expected a large amount of activity during assembly, installation and operation will saturate port facilities and port side space at Lowestoft's shallow water port. This will necessitate the use of surrounding ports along the coast to support the installation and O&M activities – and given its previous work and experience on similar projects, Harwich is an ideal location.

In addition to the opportunities offered by supporting assembly, installation and O&M activities out of Lowestoft, the long-term O&M base for the Galloper offshore wind farm, and the installation and O&M bases for further regional projects, including the East Anglia Three project for which the development application was submitted in November 2015, have not yet been selected.

Harwich is currently being considered as a potential O&M port to support the Galloper project and discussions with the port are ongoing. If successful, this could result in c.100 new jobs linked the operations of the windfarm. The port is also a strong contender for the future construction, installation and operations requirements to support new offshore projects and activities in the future.

Harwich offers a potential strategic hub for offshore renewables. The area has a unique offer directly relevant to the growing needs of the sector and has the potential of fast becoming a global centre of excellence in offshore marine engineering based upon its combination of the area's proximity to the world's largest market for offshore wind development and deployment; and access to 63% of all of the UK's total current generating capacity off the East Anglian coast.

Based on consultation feedback and experience in developing and operating similar innovation and incubation facilities in similar areas, there is the real potential to further develop the offshore renewable engineering supply chain in Harwich in a broadly similar way to that which has taken place in Lowestoft over the past ten years. This would help to strengthen the Haven Gateway and the wider Essex position within the offshore renewable and marine sectors. The Harwich and Lowestoft clusters would then have the opportunity to explore collaborative working and develop projects that could be beneficial to both areas.

2.5 The opportunity beyond 2020

There are also sizeable planned investments beyond 2020 that will continue to offer further opportunities in the ports and logistics and offshore engineering sectors supporting demand for the Harwich Innovation Centre in the medium to longer term, particularly in the offshore wind and nuclear sectors.

In offshore wind, the East Anglia Development Zone comprises of East Anglia One and an additional five projects (Table 6) that will offer longer term opportunities in the offshore wind sector and for port locations across the East coast. These five additional projects will add a further capacity of 6,000MW renewable energy generated off the region's coasts.

The remaining projects in the East Anglia Development Zone are expected to attract a capital investment in the region of £3 – 3.4bn each. The combined capital expenditure in the region will, therefore, present an approximate £15bn opportunity in the long term. Opportunities in the continuing site development, installation and O&M of these projects will be important in sustaining and growing the local supply chain and feeding demand for the facilities provided by the Harwich Innovation Centre and associated facilities.

Project Name	Capacity (MW)	No of Turbines	Turbine Capacity (MW)	Developer	Status	Offshore Construction Start[3]
East Anglia TWO	800	TBA	TBA	Scottish Power Renewables	Early Development	2023
East Anglia THREE	1200	100 – 172	7 – 12	Scottish Power Renewables	Consent Submitted	2021
East Anglia FOUR	1200	120 – 240	5 – 10	Vattenfall	Early Development	2023
East Anglia FIVE	1000	TBA	TBA	Vattenfall	Early Development	2025
East Anglia SIX	1800	TBA	TBA	Vattenfall	Early Development	2026

Table 6: Future Offshore Wind Projects Expecting Significant Capital Expenditure in the region Beyond 2020

Further to the expected capital investment in offshore wind beyond 2020, there is also substantial investment expected in nuclear power projects in the East of England, further boosting supply chain opportunities, the local economy and the region's contribution to the national low carbon energy generation capacity.

It is expected two projects will be developed in the region by developer and utility company EDF Energy beyond 2020; Bradwell B in the Maldon District in Essex, and Sizewell C in Suffolk. In autumn 2015, EDF Energy agreed on the Heads of Terms for the joint development of these projects with the Chinese investment company China General Nuclear (CGN). The agreement for Sizewell C is close to its final investment decision stage in which EDF will take 80% share and CGN 20%. At Bradwell B, EDF is expected to take 33.5% share in the project, and CGN will take 66.5%.

Whilst these new nuclear developments are onshore, the developments are close to the coast and are expected to generate marine related work for the region's ports and logistics sectors, transporting materials and completing construction activities heavily utilising marine supply chains. Timescales for the development and construction of Bradwell B are not yet known.

[3] RenewableUK offshore wind timeline 2015 http://www.renewableuk.com/en/publications/fact-sheets.cfm/Offshore-Wind-Project-Timelines-2015

3 Demand and Need

This chapter presents the industry consultation to establish if there is still a demand and need for an innovation centre in Harwich. The consultation has engaged with a diverse range of businesses currently involved or seeking to become involved, in the marine, ports and logistics, and offshore renewables and engineering markets.

The feedback and analysis inform the further development of the facility, assuming the selected location at Mermaid House, by identifying the following;

- The type of innovation and incubation centre required.
- The facilities required e.g. do users want high-spec office space; engineering workshops/fabrication space; meeting and events space; and/or training facilities.
- The preference amongst potential users in terms of building management and lease arrangements.
- The demand for added value services, including business support services.

This chapter presents the process by which the demand and need have been assessed; presents a quantitative and qualitative analysis of the research findings; and summarises the key conclusions to be drawn with regards to the demand for an innovation centre in Harwich.

3.1 Process for the demand and need assessment

To complete the demand and need assessment an extensive stakeholder consultation was undertaken. Over 200 companies active in the marine, ports and logistics, offshore renewables, and engineering sectors were identified and invited to contribute to the research. The consultation was focussed on companies either located in the counties of Essex, Suffolk, London and Kent, or those actively working in the supply chains within Harwich in recent years. Companies located elsewhere in the country were also targeted where they were identified as potentially interested in expansion/relocation into the area of Harwich.

The consultation took a three-phased approach: online consultation; feedback on the innovation centre proposal via email; and interviews conducted either over the phone or in person. Face-to-face interviews and telephone discussions were favoured over the independent completion of the survey or feedback via email as this allowed the interviewer to gain a more in-depth understanding of the business' needs and development plans of the consultees.

All stakeholder feedback gained through the industry consultation were based around the completion of the same specifically designed questionnaire in order to ensure informative and comparable feedback was provided to allow detailed results analysis. The questions are provided at **Appendix B** to this report.

57

Targeted Industry Stakeholders Consulted

3.2 Assessment of demand and need

Of the 200 companies invited to participate, the demand and need consultation has engaged directly with over 29% or 57 targeted stakeholders currently active in the marine, ports and logistics, and offshore wind and engineering sectors. Key companies engaged in the consultation included offshore wind developers' responsible for developing and operating current and future offshore wind projects in the region; **SSE Renewables** and

Galloper Offshore Wind Ltd., and large offshore service providers and vessel operators working in offshore renewables and other offshore marine sectors; **Seajacks International, GEV Wind Power, Fred. Olsen Windcarrier,** and the **James Fisher Group.**

In addition, companies working in the marine, ports and logistics sectors; **Admiral Harding Ltd., Harwich International Port, Sailspar Ltd**, and **Inscape Shipping Services** were also consulted. The full list of companies who took part in the consultation is provided at **Appendix A** to this report.

Many companies consulted stated they work across one or more of the sectors listed, however, the majority of respondents stated they work in the offshore renewables (43 respondents) and/or other marine industry sectors (38 respondents). 18 respondents work in the ports and logistics sector. Only two respondents stated that they are not currently active in any of these sectors, but that they would like to get into these markets in the future (see Figure 7 below).

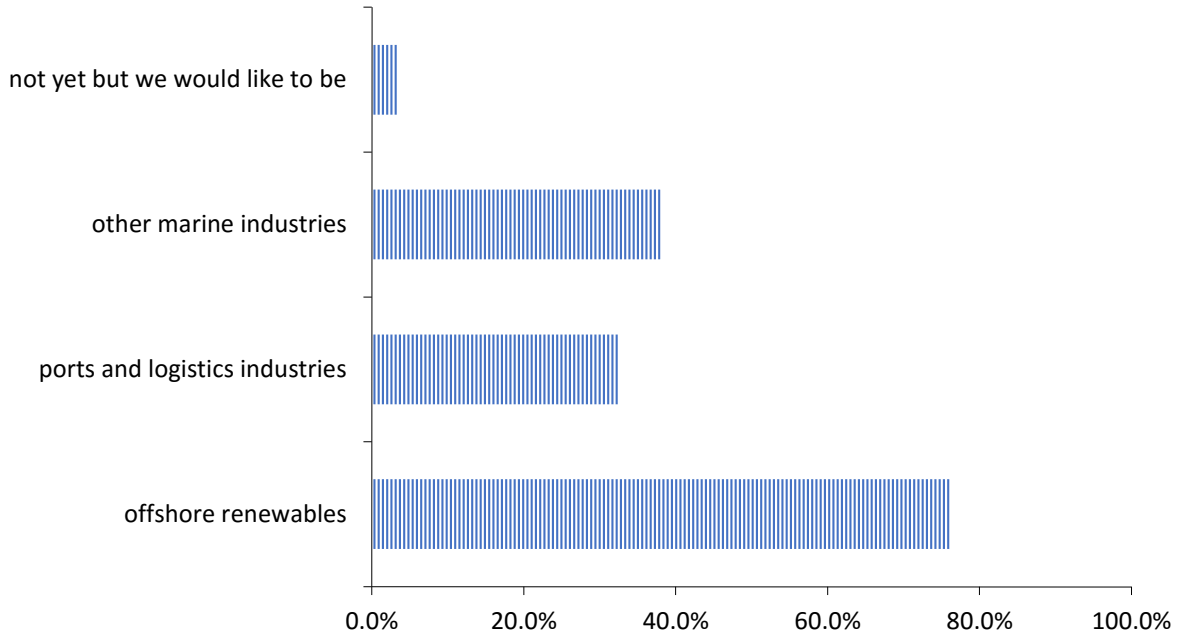


Figure 7: Consultation responses when asked 'is your company currently working in the marine, ports and logistics, or offshore renewables and engineering sectors?'

18 companies consulted, identified a current need to expand or relocate. 6 of these stated they would be looking to do so in the short-term, either immediately or in the next six months, 4 indicated they would be looking within the next year, and 10 indicated they would be looking for additional locations in 1 – 2 years or in the longer term (Figure 8). This places some urgency in moving this project forward at the earliest opportunity, or risk losing this confirmed interest to elsewhere in the county or further away.

It is noted that a current need to expand and/or relocate, for instance, to deliver existing orders and client services, is not in itself an indication of whether the company would consider taking space at a new centre in Harwich. Many more companies may be encouraged to establish themselves in new locations where there are increasing work opportunities and developing supply chains in order to position themselves favourably to benefit from these opportunities.

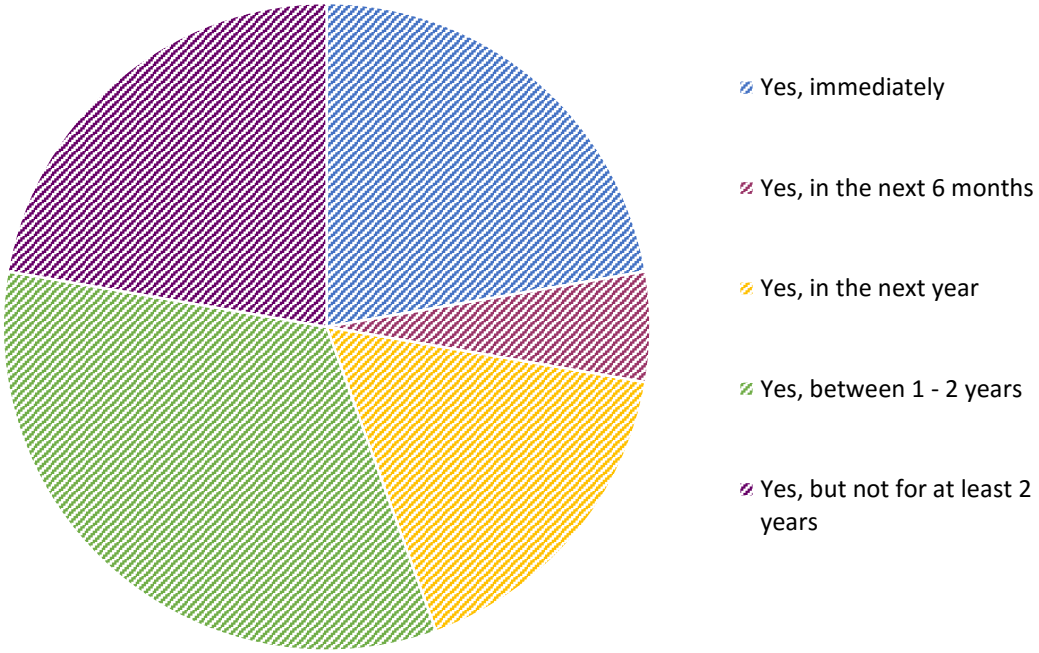


Figure 8: Chart showing the timescales over which companies with a need to expand or relocate may look to take up new premises

3.2.1 Facilities required in an Innovation and incubation Centre

Of the physical accommodation and facilities identified as features of the proposed Harwich Innovation Centre, the consultation indicated the most popular requirements were for **private office space (85%), private meeting rooms (70%), reception and conference call facilities (both required by 56% of respondents).** 52% of respondents require video conferencing and 48% indicated a need for shared meeting room facilities. There was lesser, but still significant, demand for an executive boardroom (44% of respondents) and co-working/hot desk facilities in shared/open plan office space (33% of respondents) (Figure 8).

16 companies responding to this question indicated they would look for other facilities in addition to those above. Of these, **9 respondents indicated they would look for workshop, fabrication and/or storage facilities** on site or nearby in addition to the office facilities specified. Three respondents indicated that **shared or break-out spaces would be valuable**, and a further two re-iterated the importance of **fast broadband** and good connectivity. One respondent indicated presentation or events space would be valuable.

When asked how frequently businesses use facilities that may be shared in the proposed innovation centre, meeting rooms and conference call facilities were in the highest demand, with 26 and 18 respondents respectively indicating they would use these facilities on a regular basis at least once a week (Table 7). The centre should provide adequate meeting room space to satisfy this requirement amongst potential tenants. Video conferencing facilities are likely to be used less often, but a significant demand for these facilities amongst users was still indicated.

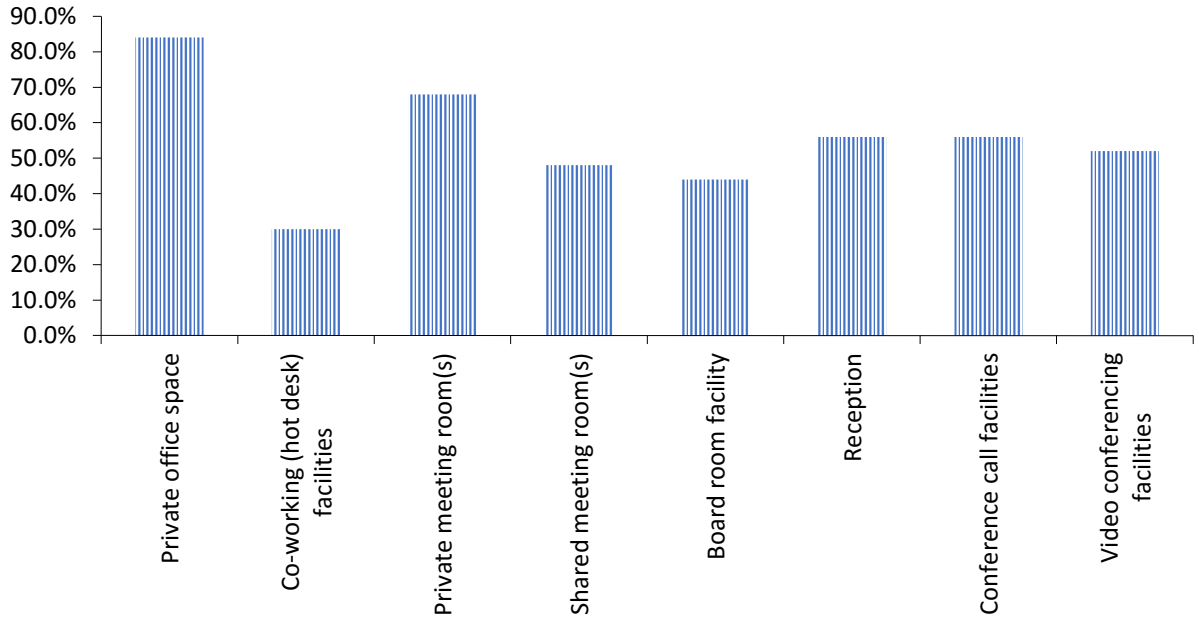


Figure 9: Chart indicating the type of office facilities required by potential users of the Harwich Innovation Centre

	Once a week	One a fortnight	Once a Month	Less frequently than once a month
Meeting Rooms	26 respondents	4 respondents	7 respondents	8 respondents
Conference Call Facilities	18 respondents	4 respondents	5 respondents	8 respondents
Video Conference Facilities	10 respondents	5 respondents	4 respondents	10 respondents

Table 7: Table showing likely frequency of usage of shared facilities by potential users of the centre

When asked what additional amenities the consultees would expect to see at the centre, **car parking was considered as a key requirement for 98% of respondents**, and **private/shared kitchen facilities were also required by 76% of respondents.** Shower facilities and a bicycle store were also considered desirable.

The overwhelming majority stated that car parking should be included in the lease fee and provided free to tenants and visitors (89%). A quarter of respondents stated car parking should also be secure. Only 3 respondents stated they would be prepared to pay for parking spaces for their company/employees.

When asked to specify any other facilities they may like to see at the centre, again companies reiterated the need for fast and reliable broadband, break-out or networking spaces, and one respondent suggested a gym.

49% of respondents stated they would require 24hr access to the centre on weekdays and weekends. 30% of respondents stated they would require access during extended weekday hours for instance from 07:00 – 19:00, and 21% of respondents stated they would only need access during standard working hours from 08:30 – 17:30.

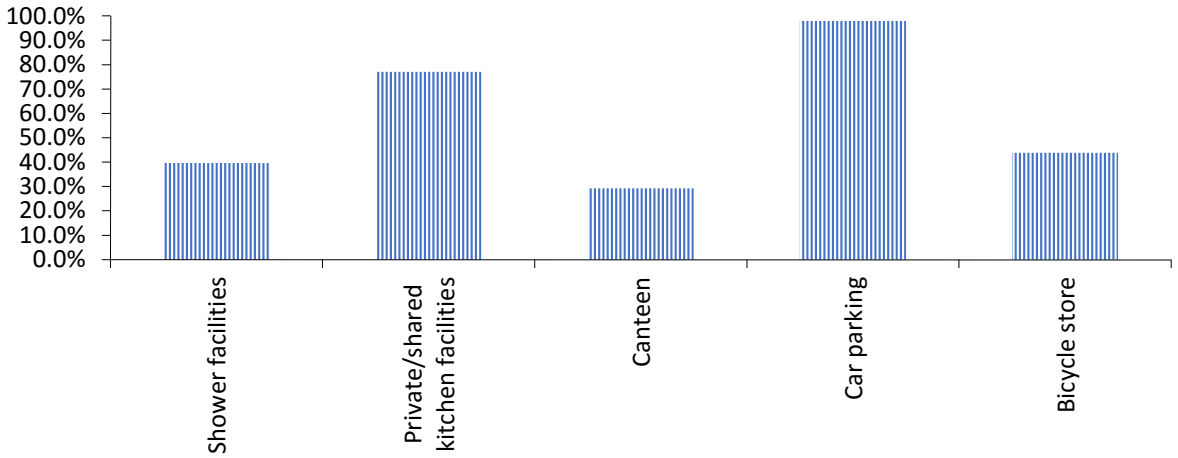


Figure 10: Chart indicating the additional amenities/facilities potential users would like to see at the facility

3.2.2 Demand for Added Value Services in an Innovation and Incubation Centre

When asked about the added value services that could be offered by the proposed innovation centre in Harwich, a fully serviced managed workspace appeared to be the preferred option amongst companies consulted (Figure 10). 85% of respondents stated they would prefer a centre with a **shared reception**, and 58% stated they would like **admin support services** such as answering diverted phones and forwarding mail as required. 60% of respondents stated security on site would be an advantage. Only 7% of respondents stated they would prefer an unmanned and unmanaged centre.

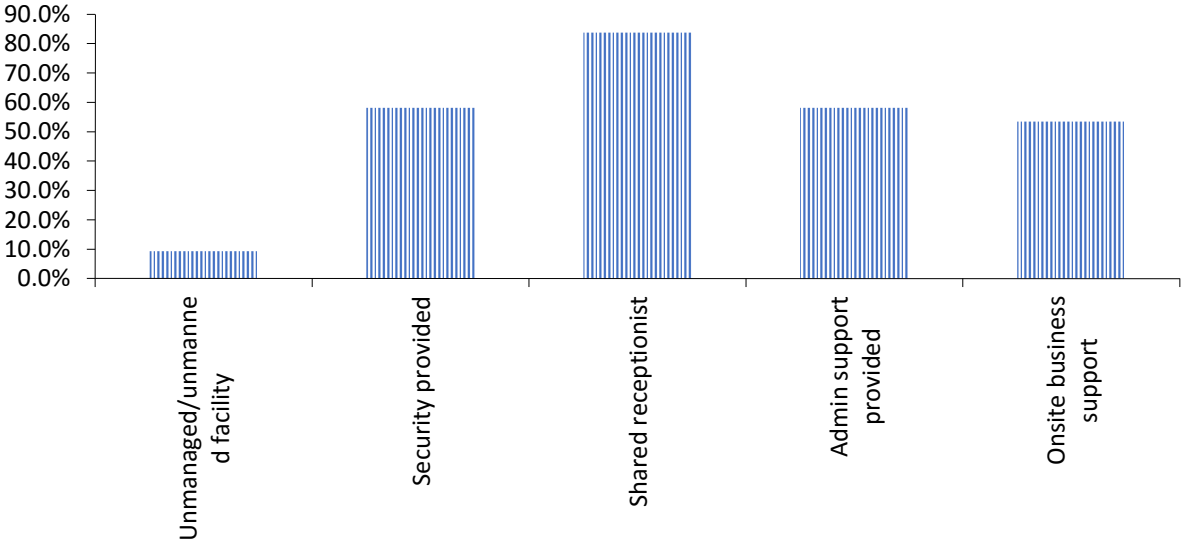


Figure 11: Requirements in terms of the management options for the Harwich Innovation Centre

53% of respondents stated they would like the centre to provide **business support**. When questioned about which areas of business support would be of value to them, 65% of businesses consulted provided feedback (Figure 12). The greatest demand across the businesses engaged in the consultation was for **access to new business and contract opportunities**, and **B2B networking opportunities. Focused market intelligence and specialist industry advice** were also considered valuable by the relevant supply chains. Advice on finance and funding, marketing and promotion and support with tender and bid writing were also considered valuable.

Figure 12: Areas of business advice of value to potential users of the Harwich Innovation Centre

Some respondents to the consultation also suggested additional areas of advice that would be valuable and should be provided by or made available through the centre. Advice on funding for training, product/service development, recruitment and assistance on getting on the approved suppliers list for local projects offshore, including funding/assistance getting the qualifications required to pass pre-qualifications and in getting to the next stage following this, were also suggested.

When asked whether it was their preference for business advice to be provided on site, or whether they would be happy to access this via a referral service such as the LEP growth hub, 38% of respondents stated these should be provided on site free of charge to tenants. Only 3 respondents or 8% stated they would pay for the service on site or would be happy to access a referral for the advice. A significant 46% of respondents stated where the advice was accessed did not matter as long as it was available and accessible to users when they needed it. This response identifies that there is a clear demand for business advice services to be provided within Harwich and made available to tenants and potential users of the centre in the local area.

In terms of tenancy arrangements, the majority of businesses surveyed - 56% of respondents - stated a **preference for easy-in-easy-out tenancy arrangements**. Only 3 selected short-term 6-month leases, 7 selected medium term 1-year leases, and 8 selected longer term 5-year options. It is noted that those stakeholders selecting long-term lease arrangements were those larger, tier-one companies engaged in the

consultation. These companies look to secure accommodation for the duration of longer term project activities over 3-4 years and have capital available to make a commitment to longer-term leases.

3.2.3 Developing a pipeline of potential tenants, virtual tenants and users of the centre

In terms of developing a pipeline of companies potentially ready to take up occupation or a virtual tenancy at the new Harwich Innovation Centre, **18 companies expressed an interest in physical tenancy**. Amongst these companies, the feedback suggests there is a requirement to accommodate in the region of 87 employees working from the site. Seven of these companies would look to take up space in the centre within the next six months, five would consider space between 6 months to 2 years, and 7 stated they would look at taking space in 3 to 5 years.

The consultation suggests the majority of potential occupiers will require units accommodating up to 5 employees (per company); 6 companies stated a requirement for 1-2 employees/desks, and a further 9 stated a requirement for up to 5. Three companies indicated they would require larger units to accommodate up to 10 employees/desks.

In addition to this pipeline of potential occupants, **20 respondents expressed an interest in virtual tenancy at the centre**, this includes 12 companies who have suggested both a virtual and physical presence (virtual leading to physical over time) and a total of 35 stated they would use meeting rooms on site, or access the business support services, should they be available to visitors to the centre on a hire out basis. The ad-hoc hire of facilities is particularly important for companies already located in Harwich and the wider area who may not require tenancies but would value the access to the business support services. Hire of meeting room facilities on an ad hoc basis would also provide an additional revenue stream for the centre.

Proximity to comparable businesses and supply chains was clearly indicated as important by stakeholders contributing to the consultation in making their locational decisions. Many indicated that whilst they currently have limited work in the area of Harwich, they would be interested in expanding to the area should there be a clustering supply chain of relevant companies and a demonstrable opportunity for them to access new business prospects.

It is usual for the occupation of facilities such as the Harwich Innovation Centre to build over time. For the size of the proposed premises, and the potential number of businesses a centre at this location could house, the initial pipeline of 18 businesses interested in taking space is a positive indication that it is likely that a successfully managed centre would reach maximum capacity in the medium to long term. This does not include, or take into account, any potential churn with businesses growing and ‘graduating’ from the innovation centre, and new tenants moving in or new businesses being created.

For those companies consulted who did not indicate a current interest in physical space or virtual tenancy services at the Harwich Innovation Centre, the predominant reasons for this were that their current premises and facilities were adequate for their current needs, and in some cases that their requirement is for workshop/fabrication facilities alongside their office units.

3.3 Summary of key findings

The demand and need assessment above indicates there remains a considerable demand for the facilities that could be provided by the proposed innovation centre at Mermaid House. Based on our consultation, **26 unique companies expressed a firm interest in tenancy, 18 physical and an additional 8 beginning with a virtual tenancy**. These companies alone suggest a requirement to support in the region of 87 employees

working from the new centre. Companies include offshore wind developers and operators and supply chain companies of mixed size.

Results from those consulted suggest greater demand for a mix of private office space, meeting rooms and some co-working areas. Ample car parking at any site is found to be essential, as is reliable and fast internet connection. Break-out spaces were also considered important.

The clear preference amongst companies consulted is for a fully serviced managed workspace with services including a shared reception, security, administration and reception support. The prominent demand for facilities at the site is for flexible office and meeting room space.

Business support services are also seen as an important added value service with several potential users of the space, and the supply chain in the local area, indicating there appears to be a lack of visible and accessible sector specific business support. Business to business networking opportunities and brokerage and access to new business and contract opportunities are the most highly sought after areas of business support, followed by focussed market intelligence and specialist industry advice/sector support. Advice on funding and finance and marketing and promotional services are also valuable to the target audience.

4 Proposed Harwich Innovation Centre Options

4.1 Consultation with managed office workspace operators

The demand and need assessment based on consultation with potential users of the space presents a clear requirement for **fully serviced managed office space including a mix of private office space, meeting rooms, break-out and networking areas, and added value services.** As part of this study, therefore, the views of operators of similar facilities in the area was sought to provide an expert opinion on what makes a "flagship" innovation centre. This included desk-based research, "mystery-shopper" type calls and discussions with managed office space operators.

Following engagement with a number of existing and potential management operators, the following organisations directly contributed to the research:

- Ignite Business Enterprise Limited
- Norfolk and Waveney Enterprise Services (Nwes)
- Oxford Innovation
- Regus

The consensus from those spoken to was that an ideal innovation centre should provide a mix of office and meeting facilities. Furthermore, whilst 'co-working' was not considered a key requirement of the businesses consulted, it is an increasingly popular model in multi-occupant workspaces and is an important element of the facilities provided in an innovation centre seeking to support the growth of companies and innovative new products.

Moreover, in a recent business survey completed by Regus[4], **74% of respondents stated co-working provides the ideal environment for start-ups and small businesses to thrive**, providing a cost effective

[4] Survey of 44,000 business representatives, accessible at http://contact.regus.com/bau_gbs_uken?utm_campaign=Prod_Engagement_GBS_UK_0601_IE&utm_medium=email&utm_source=Eloqua

solution to establishing a workplace and presence in the supply chain. In the same survey, a further 73% of respondents stated that flexible workspace such as co-working facilities let them expand to new geographies and markets, thus assisting existing businesses looking to move into the local supply chain at an initially low cost. Co-working and collaborative spaces allow new business in the supply chain or local area to engage directly with customers and suppliers and facilitates networking in the supply chain. In the Regus survey 80% said collaborative spaces help them to network and 82% said the reason they would choose co-working space is to meet people.

Flexible space which can accommodate both co-working and private offices are preferable to an operator, offering greater flexibility based on individual client needs. The centre should seek to support clients in the targeted supply chains at all stages of growth, from start-ups or businesses moving into the area who may wish to take a virtual office or hot desk space, to larger businesses at a more advanced stage of growth who may take a private office and eventually may graduate from the facility into their own premises.

Break-out areas including seating and shared kitchens are considered important because they encourage businesses to network with each which bring new opportunities for partnering and/or joint-venture projects. Another key consideration for co-working environments is helping businesses to raise their own profile in the supply chain and shared areas provide an opportunity for casual networking.

Good connectivity in a business centre is vital, and developers should ensure high-speed internet is available to users of the centre. Ample car parking for tenants and visitors is vital, and should be provided free of charge to tenants (alternative a small charge inclusive in any rental agreement) and their visitors. It is also important to allow tenants to use their space as they wish and as such provide 24/7 access to the centre.

Business support is a key added value service for sector focussed business and innovation centres. Providing this support service on site, or via a referral service are both potential options, however, it is vital that the support service, and what it can provide, is made clearly visible and accessible to the potential tenants. Basing the business advice/support provisions at one central location, i.e. the centre itself, and via an outreach service including events and individual company visits were suggested by one management company as an effective approach to making the services visible and available to the supply chain.

4.2 Offshore Renewables Innovation Centre Case Study - OrbisEnergy

OrbisEnergy, located in Lowestoft, is an example of a sector focussed flagship building delivering flexible office, boardroom and conferencing facilities for large utilities and small and medium sized enterprises (SMEs) involved in the offshore renewable energy sector. The building has 38 variable sized units with a capacity to support c.120-150 staff.

Opened in November 2008, the facility is owned by Suffolk County Council and managed by business support specialists Nwes. This landmark building brings together offshore developers, operators, engineering companies, suppliers, service providers and private investors to help generate work, projects and contracts. Since opening, OrbisEnergy has supported more than 130 tenant companies and helped to create over 700 new jobs in the area. The building is currently 95% occupied with a pipeline of new tenant interest.

OrbisEnergy prides itself on being more than “just a building”, providing an innovative environment to facilitate supply chain development and clustering of competence in offshore renewables. Each floor has a mix of offices and break-out facilities and industry experts and business support specialists are available to all tenants.

Figure 13: OrbisEnergy, the offshore renewable energy innovation centre in Lowestoft, Suffolk (Inset picture: a typical office environment at OrbisEnergy)

Figure 14: OrbisEnergy, aerial view and site plan

In addition to accommodation for growing companies, OrbisEnergy has some of the most inspiring meeting and conference facilities in the East of England, set against the ever-changing backdrop of the North Sea providing the ideal location for events.

OrbisEnergy offers a mix of meeting rooms and conference space as well as its executive Boardroom and hot desk office. All rooms have Wi-Fi for visitors as well as built in AV equipment.

Because of all of this, OrbisEnergy is able to command far higher rentals than dictated by the commercial property market in Lowestoft. For example, Hamilton House in Lowestoft is currently marketed at £1 per sq. ft. and has been vacant for some time compared to OrbisEnergy (within very close proximity) where rents of £31 per sqft are achieved and the building is close to full occupancy. After just 10 months of opening the occupancy level was over 40% and the building had secured Scottish and Southern Energy (SSE) through Greater Gabbard Offshore Winds as an anchor tenant.

4.3 Options for Mermaid House

The form and specification for the proposed centre must be developed and informed by the findings of the demand and need research and experience of other similar successful facilities documented in this report. Subject to detailed analysis required by further work, an interim high-level physical specification at this time based on Nautilus property development experience would include:

- Flexible lettable co-working/office space
- Flexible lettable units including some larger units capable of accommodating 5-10 people
- Multi-use areas for meetings and networking
- Refreshment facilities and breakout spaces
- A striking entrance and common reception with bespoke facilities management desk
- Centre management and business support facilities
- Redeveloped and fully fitted out toilet areas and showers
- 24-hour security access systems
- Car parking, cycle storage and ancillary facilities for in the region of 100 people
- Fully serviced accommodation for tenants
- Broadband, high-quality IT and fibre optic connections with appropriate capacity.

Using professional property development experience and knowledge, as part of this commission, we have looked at four options for the redevelopment of Mermaid House.

4.3.1 Refurbishment of the first floor only into lettable office space.

Best practice suggests refurbishment works to create an innovation facility offering net lettable office space on the first floor, would practically also involve the creation of a ground floor entrance/reception area. However, for the purposes of this scenario it has been assumed that no ground floor refurbishment works would be undertaken and that a first floor reception/management office of say 250 sqft/23m^2 would be created as part of the first floor facilities which, other than a small kitchen area, would otherwise be refurbished entirely as individual lettable office spaces.

As the existing toilet facilities are on the ground floor, it has been assumed that these would remain on the ground floor, to maximise the already limited lettable space available on the first floor, with users of the refurbished first floor space using the existing ground floor toilets by arrangement with the landlord. No allowance has been made for the refurbishment of the existing toilet/welfare facilities.

- On this basis, high-level indicative building works costs are estimated to be in the region of **£560,000** for such work.
- This would generate a net lettable office space area of c.3,600 sqft/334 m^2. For this type of development, serviced local offices but not a fully-serviced innovation centre, typical rents achievable would be c.£15 per sqft and, therefore, would generate a rent roll of **£54,000** per annum **(9.6% return on investment)**.
- Assuming 90% occupancy with a rental income of £48,600, and with costs of c.£34,650 this could create an annual return of **c.£13,950 (2.5% rental yield)** (excluding business rates voids).

Development of a single floor, in the manner suggested above, would be technically possible however this will present a number of challenges for the development. These include:

- not practically being able to supply the optimum mixes of space needed for an innovation centre to be financially viable;
- not providing the critical mass typically needed to support the ongoing costs of some of the core functions of successful innovation centres;
- costing disproportionately more in terms of cost per sqft of construction costs than a centre developed over both floors (see below for further examples)
- use of the first floor would still ideally necessitate some refurbishment of the ground floor facilities in order to support any innovation centre related activities on the first floor e.g. refurbishment of the toilets; and potentially provision of a lift and the creation of a DDA compliant reception area and entrance facilities for all visitors to and users of the innovation centre;
- refurbishment of the first-floor only could cause security and access challenges within the building as well as detracting from the overall image of the Harwich Innovation Centre would seek to have, assuming the ground floor is not refurbished to a similar standard. This, in turn, could affect its attractiveness and impinge upon the marketing of the overall concept and offer. It could also complicate the practical facilities and operational management of the centre and the building.

4.3.2 Refurbishment to provide lettable office space on both the first floor and ground floor.

For the purposes of this scenario the required reception/management facilities would be created on the ground floor and refurbishment of the toilets and welfare facilities (including kitchen area) would also be undertaken on the ground floor. All other space available would be refurbished into suitable net lettable office units across the remainder of the building.

- Indicative costs for this type of refurbishment are estimated at **£1,265,000** generating net lettable office space of c.6,400 sqft/594 m^2.
- Assuming a fully serviced office based facility, the innovation centre should be able to achieve rents of £27.50 per sqft and thus an annual rental income of **£176,000 (14% return on investment)**.
- After costs of c.£80,000 and assuming 90% occupancy with a rental income of c.£158,400 this could create an annual return of c**. £78,400 (6% rental yield)** (excluding business rates voids).

4.3.3 Refurbishment of first floor office space and ground floor workshops

This scenario would provide a mix which would seek to capture demand for any workshop space as well as that for an office based innovation centre facility. This scenario and mix of uses has proven to be difficult to accommodate and operate within one building, and would detract from the 'high specification' characteristic of any innovation facility within Mermaid House. Workshop type space is often a vital element of any

innovation facility offer, but this is best and most successful where the workshop and office elements of any innovation centre share core services and the benefits of shared facilities (e.g. business support, meeting rooms) but where those types of uses are not close to one another and are physically separated.

- For the purposes of comparison, the option has been examined. Indicative high level building work costs for undertaking the related works are estimated in the region of **£1,153,000.**
- This scenario projects a net lettable area in the region of the following: 2,500 sqft/232m^2 of lettable workshop space and 3,900 sqft/362m^2 of lettable office space generating a rental income of **£107,250** per annum for the offices (£27.50 per sqft), and **£15,000** per annum for the workshop space (£6.00 per sqft).
- After costs of c.£70,061 and assuming 90% occupancy with a rental income of c.£110,025, this could create an annual return of c**. £39,964 (3%)** (excluding business rates void).

4.3.4 Refurbishment of the first floor for use as co-working and offices and the ground floor as office space plus meeting rooms

This scenario would take the entirety of the existing building and provide a mix of office suites, meeting rooms, and an open plan co-working environment. An iconic ground-floor reception would be created replacing the existing stores facilities and roller-shutter door. Some investment will be required to ensure DDA access requirements can be met. This option assumes access from the reception area to the ground floor offices and meeting room(s) for all users and/or occupants who may require disabled access.

- The anticipated works cost for this type of refurbishment project is expected to be in the region of **£1,229,000**.
- This would be expected to generate a net lettable floor area of 3,400 sqft/316m^2 of lettable office space; 2,200 sqft of/204m^2 lettable co-working space and 1,200 sqft/111m^2 of meeting space. Co-working commands a monthly charge of at least c.£160 per month per desk.
- In a space of 2,200 sqft/204m^2, this would allow for a minimum of 35 desks providing a potential annual income of **£67,200.** Furthermore, the office space would generate an annual income of **£93,500** and the meeting rooms could earn an additional annual income of **£19,500** (assuming only utilised 50% of the year).
- After costs of c.£71,000 and assuming 90% occupancy with office rental income of £144,630, co-working income of £60,480 and conferencing income at £19,500, this scenario could create an annual return of c**. £83,130 (7%)** (excluding business rates voids).

4.3.5 Comparison, Summary and Preferred Option

Table 8 shows a high-level comparison of the options of refurbishing Mermaid House. All options assume 100% occupancy to show maximum income potential, with meeting rooms assumed at 50% utilisation.

	Capital Cost	Floor Area (sqft)			Maximum Income	Yield
		Office	Workshop	Meeting rooms		
First floor offices only	£560,000	3,600	n/a	n/a	£54,000	9.64%
First floor and Ground floor offices only	£1,265,000	6,400	n/a	n/a	£176,000	13.91%
First floor offices / Ground floor workshops	£1,153,000	3,900	2,500	n/a	£122,250	10.60%
First floor co-working & offices / Ground floor offices and meeting rooms	£1,229,000	3,400	2,200	1,200	£180,200	14.66%

Table 8: Comparison of options at Mermaid House.

Based on these scenarios, we recommend the refurbishment of the first floor for use as co-working and offices and the ground floor as office space plus meeting rooms as set out in section 4.3.4 above.

Based on the demand and need feedback from potential users, the views of management operators, and our own experience in developing and managing such facilities, we recommend this as the 'preferred' option.

The development of the Harwich Innovation Centre at Mermaid House is only viable if the whole building is used and refurbished. This will require full access to all parking spaces for tenants/users of the building.

We understand that Trinity House have a requirement for some level access for staff parking and archive storage. These can potentially be delivered by upgrading and/or removing some of the existing outbuildings on the site to create secure storage and additional parking bays. For the avoidance of doubt, the outbuildings and external site layout have not been considered in detail within this report.

5 Conclusions and Recommendations

The East of England is at the centre of the world's largest market for offshore wind deployment and the UK's densest area of offshore wind energy development. The UK has more installed offshore wind capacity than the rest of the world combined and 63% of all the UK offshore wind capacity is off the region's coast.

Harwich is ideally located to take full advantage of the future offshore wind projects. Despite recent announcements that Scottish Power Renewables will be setting up their central base for construction and long-term O&M for the East Anglia ONE offshore wind farm in Lowestoft, Harwich is still an ideal location to support both installation and O&M activities for later projects, centred further along the coast.

In addition to the opportunities offered by supporting assembly, installation and O&M activities out of Lowestoft, the long-term O&M base for the Galloper offshore wind farm, and the installation and O&M bases for further regional projects (including the East Anglia Three project, for which the development application was submitted in November 2015) have not yet been selected. Harwich is a strong contender for the construction base for these new projects and activities in the future, with suitable facilities and capacity, demonstrable experience and a supply chain to support the activities.

In addition to the offshore wind opportunities, offshore oil and gas and decommissioning and transport and logistics offer a number of opportunities for businesses based within Harwich to capitalise on in the next 5 years and beyond. There are also significant future opportunities beyond 2020 not just in offshore wind but also the nuclear projects planned for the region.

Investment in these sectors across the UK and in the East of England offers a significant opportunity to boost economic growth and to create new employment for businesses within Harwich.

The feedback from the industry consultation presented in this report presents a clear message that there is still a demand for the proposed innovation centre for the marine, ports and logistics, offshore renewables and engineering centre in Harwich. There was a real concern expressed that Lowestoft may not have the supporting infrastructure for the long term demand the offshore wind sector may need, and that larger wind operators will need to look at other options – that could be Harwich.

Reflecting the 2014 feasibility study, this research and stakeholder feedback has re-iterated how such a centre could act as a catalyst for the establishment and the further development of these key sectors and

how it could be core to maximising the potential opportunities for the delivery of long-term benefits for the local economies within Tendring and Essex. Without any action at all there is a strong chance that these opportunities may otherwise be missed by Harwich. The development of an innovation centre in Harwich will provide the focal point needed to raise the profile of the Harwich ports offer for offshore renewables and growth through the ports and logistics based supply chains – like OrbisEnergy has done for Lowestoft.

The demand evidence supports the case for a **fully serviced managed business space** supporting the supply chain in the region. The space should cater for on-site tenants but also support a wider range of businesses that benefit from the services at the centre through utilising virtual tenancy arrangements and/or access the physical and added value business support on an ad hoc basis.

The selected property at Mermaid House could, with appropriate redevelopment and refurbishment works, lend itself well to being an innovation centre for the targeted sectors. It is in a prominent location and can be converted to offer high specification lettable accommodation and associated functions required.

While it is technically possible to develop a single floor of Mermaid House as an innovation facility this is not recommended as it would not represent a cost effective nor efficient approach to setting up an innovation centre. Furthermore, a facility based around a single floor of Mermaid House is unlikely to provide the critical area of lettable space (and thus rental income) needed to support a sustainable facility and justify the integral innovation activities and services in-situ.

The aim is to create the ideal environment for a hub of knowledge transfer, business development and for the commercialisation of innovation in support of the vision. The completed centre will provide the environment for productive exchanges to support supply chain development and foster business growth and the core of this vital cluster.

Refurbishment of the first floor for use as co-working and office space along with a meeting room and refurbishment of the ground floor as office space provides an optimum mix of uses and the complementary activities recommended for a sustainable innovation centre at Mermaid House.

A notional or illustrative plan based on this scenario has been developed and is presented at **Appendix D**. The plan refines the use of the first floor with primarily open plan co-working space, the inclusion of meeting space and some lettable office space on the first floor.

The ideal optimisation of space for Mermaid House would include using the ground floor to provide a shared reception, private offices and welfare facilities (shared kitchen facilities and breakout areas) with the first-floor space accommodating co-working space, flexible meeting space, and further lettable offices. The physical facilities combined with the integral business support facilities will create an optimum environment for business enterprise and innovation, providing the size and mix of uses needed to create a self-sustaining centre and a vibrant commercial environment.

5.1 Potential Economic Impact

The direct impact of establishing the innovation centre on the local economy in Harwich is difficult to accurately quantify. It is not appropriate to calculate 'additionality' of any development at this stage given the number of unknowns such as potential leakage, displacement, and the multiplier factors.

However, based on the experience of scoping, developing, and operating a range of innovation, enterprise and business centres across the East of England, Nautilus are able to estimate the number of jobs that an innovation and/or incubation centre of the type described could be developed. Based on a number of existing facilities owned and managed by the enterprise agency Norfolk and Waveney Enterprise Services (Nwes), it is calculated that **innovation and incubation centres can support an average of 8.5 jobs for every 1,000sqft of office space.**

Assuming the full development of an Innovation Centre at Mermaid House as detailed in Section 4.3.2, **this could generate a significant 58 jobs** at 100% occupancy, and 46 jobs at 80% occupancy. This assumes the average of 70% of the gross building area, (approximately 6,800sqft), is converted to net lettable space during the refurbishment. If converted to include co-working space the numbers will increase to c.**64 jobs.**

Whilst this calculation is an estimation and it is recognised that the number of workspace and jobs that could be supported at the new Innovation Centre at Harwich, will depend on maximising the workspace available during the design and refurbishment stages, this does provide an estimation of the number of jobs that a centre at Mermaid House could sustainably accommodate.

It is important to note that the demand and need consultation detailed in this report identifies 18 companies interested in occupying office type space at the centre, that may wish to place in the region of 87 employees/desk spaces at the site. Whilst it cannot be assumed that all of those expressions of interest will lead to those companies taking space in the facility, the initial interest in the new centre does demonstrate that demand for the accommodation and services provided by the centre could outstretch the maximum capacity feasible at Mermaid House in the medium to long term.

Of those companies interested in tenancy, more than half suggested a desire to expand and/or relocate to Harwich within the next 6-12 months. This places some urgency to move this project forward at the earliest opportunity, or risk losing this confirmed interest to elsewhere in the county or further away.

Of course, there are wider economic impacts that can be developed and achieved from the centre once fully operational. Whilst there are £billions of capital investment in major projects onshore and off the region's coast, there is no simple method of assessing how much will or could be achieved by companies in Harwich. Such economic value can only be achieved by the businesses and organisations that choose to establish a base in the region and play a key role in delivering those major capital projects.

On that basis, the Harwich Innovation Centre can and should act as a major catalyst for inward investment. By way of comparison, Scottish Power Renewables as developers of the East Anglia ONE project, have stated that *"Having a presence at OrbisEnergy has been integral in helping us secure planning permission for the £2 billion East Anglia ONE offshore windfarm project".* Based on Nautilus' experience, there is nothing stopping the proposed centre playing a similar role for Harwich.

5.2 Recommendations and Next Steps

Based on the research and consultation presented above, this report makes the following specific recommendations for the next steps in the development of the Harwich Innovation Centre.

1. Develop a detailed business case and Project Implementation Plan for the redevelopment of Mermaid House

The next step in development will be to establish a Project Implementation Plan (PIP) for the refurbishment and redevelopment of Mermaid House. This work is integral to the development of the business case and funding case and will address the following:

- Project aims & objectives
- Stakeholder mapping
- Initial site/market options analysis
- Delivery constraints
- Delivery strategy and options
- Indicative costs/rents (as far as is possible with information available on costs and residual appraisals)
- Indicative delivery phasing and milestones
- Detailed assessment of funding and investment options, and expenditure forecasts
- Risk analysis and register
- Contractual relationship between Local Authorities, Trinity House and/or any potential operator.
- Consider the requirements of the Green Book and deliver a Green Book compliant project.

All the work undertaken at this stage should be considerate of and in accordance with the appraisal requirements methodologies set out in the HM Treasury Green Book Appraisal and Evaluation Document. The Green Book sets out guidance for public sector bodies on how to appraise proposals before committing funds to a project.

Works to inform the costing and the development of options for the refurbishment of the building, and the negotiating position with Trinity House should be informed by the spatial analysis and technical studies/research. This may include work in the following areas:

- Build structure and building condition
- Existing services, utilities and drainage
- Legal titles and land and property searches and analysis of the findings
- Possible transport/travel considerations
- Planning related matters
- Potential existing contamination, hazardous substances and asbestos
- Analysis of the legal title for the site with appropriate professional inputs
- Consideration of ground conditions
- Research of local property markets and establishing an opinion on value and viability
- Undertake other due diligence work that may be appropriate to any particular stage of the project e.g. normal due diligence works required prior to the conclusions of any negotiations around a lease or freehold purchase.

All of the above should be captured and implemented within the written structure of a PIP and scoped, procured and implemented with input from the project manager (see recommendation 4).

2. Identify a management model for development and implementation of the centre

Options for the redevelopment of Mermaid House must be detailed to structure and inform an outline proposal and offer which can be put forward to Trinity House. This will include a recommended option on the contractual relationship between Trinity House, Tendring District and/or Essex County Council and potentially a third party management operator of the innovation centre.

The Councils must also consider and select a management model for the long term operation of the facilities and services provided by the centre. Typically, management of innovation and incubation centres such as these will employ one of three models:

- ***Partnership model*** – numerous variations of this model with specialist provider managing and operating the facilities in partnership with local stakeholders.
- ***Public sector*** – the facilities may be owned, managed and operated by the Council.
- ***Private sector model*** – market the opportunity on the free market.

3. Identify and secure funding

Prior to the development of the Harwich Innovation Centre, potential funding options for the detailed planning and development of the centre must be secured. As identified in the 2014 feasibility study, there are a number of funding possibilities for the development, including public and private sources of investment.

Through a host of feasibility work and actual projects Nautilus and partners have built a range of innovative finance and investment models to stimulate the development of a new build innovation centre. Most recently, one of these 'partnership & leverage' models was successfully used to scope, fund and build a new £5million innovation centre. The project partnership was led by Nwes together with Borough and County Councils and the New Anglia Local Enterprise Partnership. This model saw a direct investment of £2.5m secured from a mixture of funds from Nwes and the Councils which enabled the leverage of a further £2.5m from the LEP's Growing Places fund. Nwes then sourced the revenue to kick start the operation and will provide the management of the project from design through construction, and ultimately own and operate the centre.

The current understanding is that subject to agreement with the current owners of Mermaid House, Tendring District and Essex County Councils are prepared to consider investment to refurbish the building and deliver the Harwich Innovation Centre project. The optimum refurbishment option as detailed above will require an initial investment of just under £1.3million which could be equally contributed to by c.£400,000 per council and £400,000 from the South East LEP.

Funding appropriate for the new development will be dependent on the terms of the lease from the building owners and level of investment required for the refurbishment and the selected operational model. The exact specification for the physical refurbished facility will be dependent on the existing building to be refurbished and the level of funds available.

4. Appoint a project manager

Appointing a project manager with relevant experience and expertise of similar schemes with comparable objectives will be vital to the project.

It is the project manager's role to develop and successfully implement the Business Case and Project Implementation Plan, refine briefs and develop options with the client group, and assemble and manage a professional team needed for delivery of the project (including the design team, technical specialists, building contractors and suppliers).

The experience and skills required by the project manager will span:

- Procurement and management of multi-disciplinary teams on refurbishment projects and innovation centre type projects.
- Developing and scoping the briefs for the professional team, various studies and specifications for the building, and procurement of other professionals and specialist inputs.
- Ensuring procurement is compliant with the requirements and regulations attached to any funding/funders.
- Ensuring the project is delivered in a way which is compliant with relevant professional standards and industry requirements, and captures the aspirations of all stakeholders.
- Supporting the client in addressing all land, building and planning related issues, identification of potential constraints and challenges and addressing those with an appropriate PIP including risk assessment and management/mitigation measures.
- Understanding and helping to develop the options and possibilities of the project including supporting stakeholders in the assessment of those options with knowledge spanning land, property and business case.
- Supporting the client throughout the process to test options to demonstrate their feasibility and value for money.
- Supporting the development of funding applications and the assembly of the funding package.
- Supporting the development of all associated agreements and related contractual matters.

The project manager could be appointed internally from within the council if a suitably qualified member of staff is available, or alternatively, could be contracted in from an external agency with the appropriate experience to deliver the commission.

5. Develop a coordinated marketing and communication strategy

A co-ordinated marketing and communication strategy is essential for a successful innovation centre if it is to effectively promote its facilities and available support to businesses. This should be implemented early during the development planning phase and continue through the refurbishment/construction of a facility, and is ongoing through the operation of the centre. Once the site is open the virtual and lettable space offer can further be promoted to swiftly secure any remaining occupants.

Groundwork should be done to 'sell the offer' from the early planning stages to promote the support services and lettable space that will become available. This will assist in creating a 'buzz' around the development and should also lead to a waiting list for occupiers/virtual tenants once the site is operational.

A typical marketing and communication strategy for an innovation centre should include the following:

- Identify the key objectives of the centre.
- Identify the target audience for the marketing of the centre; this should include: local residents and the business community; the business community within surrounding areas; key stakeholders and potential anchor tenants; and non-local businesses in the relevant supply chains who may move/expand to the area or take up virtual tenancy services.
- Develop a key message: any new centre should be marketed with a clear and consistent message that describes the facilities and added value services available. The message should be developed early on in the planning and used consistently through the redevelopment and operation of the centre.
- Identify the project milestones; the strategy should list key milestones in the projects development, including the expected dates for these milestones. Marketing activity should be built around these dates to ensure that there is a constant flow of information being released to generate interest in the project. This should also include any pop-up activities that will be taking place to ensure that interest builds in the centre in preparation for the opening.
- List the marketing activity types, frequency at which these should be utilised and the content that can be covered – these should include: media/press releases; case studies on users and first tenants; social media; events that could be held at the centre once running or in local facilities pre-opening (events could include supply-chain meet and greets, sector information days, and others)
- Signage – including temporary signs on site during re-development and external signage with space for advertising office and meeting room facilities.
- Advertising (budget dependant) in local papers and business classifications; national sector-specific publications and online news feeds; brochures; posters and other marketing materials for distribution; direct mail and email campaigns to businesses in the target sectors.
- Artists impressions and photography – before and after shots of the refurbishment in progress, of the finished office and meeting room facilities, relevant photos to be included in case studies, and at events on site.
- A specific timeline for marketing and communications activities, including identifying key items of marketing messages/content.
- A marketing protocol identifying the lead communications partner responsible for generating and distributing content, the procedure for approval and sign-off by project partners, and identifying the relevant persons and their correct contact details.
- Marketing circulation lists and contact details must be included or referenced and must be maintained/built upon over the lifetime of the centre.

6. Work quickly to capitalise on the present opportunities in the sectors

The final recommendation of this report is that timing is crucial in developing a centre that will maximise the benefit to the marine, ports and logistics and offshore renewables and engineering sectors in Harwich.

The councils should act on this demand now and progress development of the proposed Innovation centre at Mermaid House in Harwich. The development would boost Harwich's already strong offering to the target offshore sectors and encourage a supply chain to develop there.

The research identifies that there is a prosperous combination of opportunities at present, and in the short-term future, that can be exploited by these markets in Harwich. There is a significant current demand for the proposed centre and associated business support services in the area of Harwich and amongst companies in the targeted supply chains. Activity, particularly in the offshore wind sector, is moving fast and availability of facilities in coastal and port regions will help companies define where they choose to locate themselves based on the availability of appropriate facilities.

Evidence presented above on the established initial demand and the likely capacity at Mermaid House suggests that the demand for the accommodation and services at the new Harwich Innovation Centre could outstrip the capacity of the refurbished centre in the medium to long term. Furthermore, there is a lesser but still important demand for workshop, fabrication and storage space, as well as high spec. office and meeting room space, amongst companies in the marine, ports and logistics and offshore renewables and engineering sector. Collectively a broad mix of property assets which would provide a portfolio of the types of uses identified above would be needed to best capture opportunities in the longer term.

It is recognised that in order to meet the immediate demand for the centre, the refurbishment of both floors of Mermaid House into an appropriate facility should be pursued. The site is in an advantageous location and can be developed quickly. Alongside this centre, in the medium to long term, the councils should strongly consider the demand for a next phase of development of a portfolio of facilities needed to best meet the growing and evolving demand of the supply chain.

A next phase of development is likely to include additional serviced office facilities and associated sector specific business support, similar to the proposed provision offered by the refurbished Mermaid House. It may also include additional facilities including workshop, fabrication, storage and possible laboratory space. The detailed demands, possible locations and form for any next phase should be fully mapped in an appropriate feasibility study as the facility at Mermaid House reaches capacity and/or demand for the next phase grows.

Appendix A: Companies Consulted during the Demand and Need Analysis

The following table lists the companies consulted during the demand and need assessment, including an outline of their key products/services. Please note two respondents completed the questionnaire on-line but wished to remain anonymous.

Company Name	What is your company's key role or service?
3sun Group	Operations and Maintenance Service Provider
A2Sea	Large international in foundation and turbine transportation and logistics, O&M
ACEDA Ltd.	Provide offshore telecoms and data services Inc. electrical, instrumentation and control systems, SCADA systems, cable routing, protection, etc.
Admiral Harding Ltd.	Supplier of goods and services to the worldwide shipping industry
Advanced Power Services Ltd	Specialist electrical cable connections, fibre optics and terminations
Anglia Skills Academy Ltd.	Education and training provider specialising in the essential skills and qualifications required for those working in the construction and offshore industries
Axis Precision Engineering Components Ltd.	Engineering specialists providing subcontracted machining and engineering for market sectors ranging from offshore to aerospace industries.
BACTEC International Ltd.	Explosive ordnance (EOD), UXO, mine action and bomb disposal specialists providing services onshore and offshore around the world
Blue Ocean Projects	Provider of services/products to the subsea power cable and submarine telecommunication cable sectors, Inc. subsea cable protection
Bruntons Propellers	Propeller fabrication solutions supplied to all marine markets across the globe
Century Marine Services Ltd	Brokering of tugs, barges, offshore supply vessels, landing craft, auxiliary craft and crew boats
Cooper Lomaz Recruitment	Specialist engineering, oil & gas, and renewable energy recruitment company
CTruk Boats Ltd	Boat builder for the offshore wind sector
DAL Renewables Resourcing Ltd.	Technical manpower support
Deck Safe Solutions Ltd	Anti-slip GRP decking and flooring
East of England Energy Group (EEEGR)	Not for profit all energy trade and skills trade association
Enviro-serve Ltd.	Provision of workboats to the offshore wind industry
Fendercare Marine (part of James Fisher & Sons plc)	Provider of high quality products, services and packaged solutions to the commercial marine, naval, offshore oil and gas, and offshore renewables industries
Fred. Olsen Windcarrier Ltd.	International Jack-up vessel supply and offshore engineering services
Galloper Wind Farm Ltd.	Offshore wind farm owner and operator
GEV Wind Power	Blade maintenance services for the wind power industry
Haven Gateway Partnership	Public/private partnership to promote the region
Harwich International Port	Port operator
Hydrosphere UK Ltd.	Supplier of marine aids to navigation
IBS boats supplies	Supply and distribute components, Hypalon & PVC inflatable boats and parts
Iceni Marine Services	Own and operate transfer vessels with 10 years' experience working in Offshore Wind
Ignite Business Enterprise Ltd.	Enterprise agency providing business space and offering business support services in Braintree and the local region
Inchcape Shipping Services (UK) Ltd.	Maritime service provider - Ports agency

James Fisher Marine Services Ltd.	Providers of top sides and subsea marine services Inc. supply of vessels & port infrastructure for offshore renewables & marine industries
Lloyd's Register Energy	Founded as a marine classification society, Lloyd's Register is now a global engineering, technical and business services organisation working across many industrial sectors across the globe
LS Engineering Services Ltd.	Manufacture, supply, service support for motors and their controls
Minerva Technical Solutions	Provide a full range of total asset management solutions and expertise to support the energy production sector requirements. We are a subsidiary company in the Gardline Marine Sciences group of companies, which forms part of the Gardline Group.
Mosaic Publicity	PR, digital marketing, crisis communications & media training
Nautilus Associates Ltd.	Management consultancy
Norfolk and Waveney Enterprise Services	Enterprise agency providing business premises and innovation support in all sectors. Within our wide portfolio of business premises across the East of England Nwes currently manage specialist innovation centres for offshore renewables (OrbisEnergy) and oil & gas (Beacon Innovation Centre) sectors.
Oxford Innovation	Oxford Innovation manage a UK network of 21 Business & Innovation Centres, on behalf of both public and private sector owners that provides the ideal environment for start-ups and SMEs to grow.
Pegasus	Publishers of energy directories & marketing projects
Pier Marketing Ltd.	Pier is an award winning PR agency offering a range of communication services
Pontoon Hire Ltd.	Providers of road transportable pontoon systems for major constriction and windfarm contractors
PR Offshore Services Ltd.	An established recruitment agency, which provides personnel worldwide to the ROV and diving Industry, Inc. offshore inspection personnel
Premaberg Manufacturing Ltd.	Manufacturers of separation filtration systems for gas turbines, diesel engines, engine room ventilation and HVAC equipment
PwE Recruitment Group Ltd.	People with Energy (PWE) is a leading, UK-based recruitment agency working in the field of energy production
Regus	A global network of managed workspace, offices, virtual offices, meeting rooms and related reception and business services.
Sailspar Ltd.	Aluminium and/or stainless steel fabrications Inc. work boat fabrication and repair
Scorpion Oceanics Ltd.	Suppliers and manufacturers of submarine cables and connectors
Scour Prevention Systems Ltd.	Design and provision of scour/erosion protection for offshore foundations, cables, pipelines and other subsea and coastal structures
Seajacks UK Ltd.	Owner / operator of self-propelled jack-up vessels to the offshore wind sector
Sembmarine SLP Ltd.	EPC contractor providing design, build and install of offshore structures for the oil and gas and offshore renewables industries
Shore 2 Ship Ltd.	Supply provisions Inc. HSE and Engineering Parts
SSE Renewables	Utility company generating and providing energy, Inc. form offshore wind energy
Stema Shipping UK Ltd.	Supply of rocks and aggregates used in the maritime sector (scour protection/rocks)
SurfDev Ltd.	Design, reverse engineering, 3D scanning and inspection services
TMS Media Ltd.	PR, corporate communications and digital marketing services
Trelleborg Marine Systems	A world leader in the design and manufacture of advanced marine fenders, oil and gas transfer, ship performance, docking & mooring, surface buoyancy and service and support.
Wildpitch Data Services Ltd.	Provider of technology systems and IT solutions
World Cargo Logistics Ltd.	Provide reliable, cost effective heavyweight forwarding within the transport industry via air, ship and road freight

Appendix B: Demand and Need Survey

Essex County Council and Tendring District Council have identified a requirement for an innovation and incubation centre to help support growth in marine, ports and logistics, and offshore renewables and engineering.

The Councils and their partners have identified a prominent property on The Quay in Harwich close to Trinity House that could be appropriate for such a facility. This facility could offer mixed office space including co-working and private office space, as well as meeting facilities delivered to a high spec. with high speed internet access. The operational model is expected to include core services such as a shared reception, but other services will be shaped by the outcome of this research. Some car parking is available on site.

You are being approached as you operate in the marine, ports and logistics, or offshore renewables and engineering sectors.

The following questions are to understand the specific requirements for such a facility in the proposed location.

On behalf of our clients, many thanks for your time and feedback.

1. **Contact details**
   Contact Name
   Position
   Company Name
   Email
   Telephone

2. **Is your company currently working in the marine, ports and logistics, or offshore renewables and engineering sectors?**
   - □ Yes, offshore renewables
   - □ Yes, other marine industries
   - □ Yes, ports and logistics industries
   - □ No, not yet but would like to be
   - □ No, it's not part of our plans

3. **What is your company's key role, product/service?**

4. **Does your business have a current need to expand or relocate?**
   - □ Yes, immediately
   - □ Yes, in the next 6 months
   - □ Yes, in the next year
   - □ Yes, between 1-2 years
   - □ Yes, but not for at least 2 years
   - □ No, not at this time

5. **What sort of office facilities would you want to see in the proposed facility?**
   - □ Private office space
   - □ Co-working (hot desk) facilities in an open plan/shared office
   - □ Private meeting room(s)
   - □ Shared meeting room(s)
   - □ Board room facility
   - □ Reception
   - □ Conference call facilities
   - □ Video conferencing facilities
   - □ Other (Please specify)

6. How frequently do you use the following facilities which may be shared in the proposed facility?

	one a week or more	once a fortnight	once a month	less than once a month	never
Meeting Rooms	□	□	□	□	□
Conference Call Facilities	□	□	□	□	□
Video Conferencing Facilities	□	□	□	□	□

7. What additional amenities would you like to see?

- □ Shower facilities
- □ Private/shared kitchen facilities
- □ Canteen
- □ Car parking
- □ Bicycle store
- □ Other (please specify)

8. If you selected a preference for car parking, please indicate your preference from the following list:

- □ Car parking included in lease fee and provided to tenants for free
- □ Paid parking for an allocated space
- □ Secure parking required
- □ Other (please specify)

9. What access requirements would you like to see?

- □ Office hours 8.30 – 5.30
- □ Extended week days access 7.00 – 19.00
- □ 24hour access - week days and weekends
- □ Other (please specify)

10. Please indicate your preference in terms of management of the building

- □ Unmanaged/unmanned
- □ Security provided
- □ Shared Receptionist
- □ Admin support such as answering of diverted phones, forwarding mail, etc
- □ Onsite business support
- □ Other (please specify)

11. Are any of the following added value services of interest to you/your company?

- □ Access to advice on finance and funding
- □ Specialist industry advice/sector support
- □ Focussed market intelligence
- □ B2B networking opportunities and brokerage
- □ Access to new business and contract opportunities
- □ Advice on exporting and doing business in international markets
- □ Technology acceleration and/or commercialisation services
- □ Intellectual property and patent related services
- □ Tender and bid writing
- □ Marketing and promotion services
- □ Access to research and development partners
- □ Other (please specify)

12. If you have selected any of the added value services listed in Q13, would you prefer these services to be available on site, or would you be happy to access these via a referral service such as the LEP growth hub

- □ Available on site for free (covered in rental charges)
- □ Available on site for an additional fee as required
- □ Available via a referral service
- □ Doesn't matter

13. What term of let would suit you/your company's needs?

- □ Flexible; easy-in-easy-out
- □ Short term; 6 months
- □ Medium term; 1 year terms
- □ Long term; up to 5 years

14. Assuming the proposed facility meets your requirements as above, would you be interested in taking space at this kind facility in Harwich?

- □ Yes, in the short term (in the next 6 months)
- □ Yes, in the medium term (6 months to 2 years)
- □ Yes, in the long term (2 - 5 years or longer)
- □ No (please briefly state your reasons for this)

15. How many people might use the space/how many desks would you be considering?

- □ 1 – 2
- □ Up to 5
- □ Up to 10
- □ Over 10
- □ N/A

16. If you don't currently need a physical space, would a virtual tenancy service suit your requirements?

- □ Yes
- □ No

17. If no, would you make use of any of the following facilities at the proposed facility should they be available for rent on an ad hoc basis?

- □ Private office space
- □ Co-working (hot desk) facilities in an open-plan/shared office
- □ Meeting rooms
- □ Board room facility
- □ Other (please specify)
- □ None of the above

18. Would you also use any of the following additional added value services if they were available at the facility?

- □ Access to advice on finance and funding
- □ Specialist industry advice/sector support
- □ Focussed market intelligence
- □ B2B networking opportunities and brokerage
- □ Access to new business and contract opportunities
- □ Advice on exporting and doing business in international markets
- □ Technology acceleration and/or commercialisation services
- □ Intellectual property and patent related services
- □ Tender and bid writing
- □ Marketing and promotion services
- □ Access to research and development partners
- □ Other (please specify)

19. May we contact you for further information and input into the research?

- □ Yes
- □ No

The survey is complete, very many thanks for your time and contribution.

Appendix C: Energy Project Pipeline Details for North West Europe and the UK

This appendix provides the details behind the pipeline of significant infrastructure and capital forecasts in the subsectors relevant to this report; offshore oil and gas, offshore wind, power transmission, CCS, oil and gas decommissioning, gas, transport and port infrastructure projects, and tidal and wave projects. Detailed lists of projects identified in other energy subsectors that are less relevant to this report; solar, onshore wind, and biomass, have not been provided. Nuclear projects are detailed as these are of relevance to some in the offshore supply chains, and the projects are significant to the East of England region.

Offshore Oil & Gas

In the UK offshore oil and gas is expected to see the most significant investment in energy infrastructure development to 2020. Over the next five years there is a forecast capital investment pipeline of £45bn in offshore oil and gas projects in across the UK.

All projects have a status of current.

Project Name	Field Type	Developer	Operation (Year)	Construction (Year)	Block	Investment (£m)
Arran	Gas Condensate	Dana Petroleum E&P	2018	2017	23/11	1900
Aviat	Gas	Apache Corporation	2016	2015		1900
Bressay	Oil	Statoil	2018	2017	3/28a	4490
Cawdor	Oil	Maersk Group	2017	2016	30/14	1900
Cheviot	Oil	Alpha Petroleum UK Holdings	2018	2017	2/15	1900
Columbus	Gas Condensate	Serica Energy	2016	2015	23/16f	1900
Culzean	Gas Condensate	Maersk Group	2018	2017	22/25	3210
Cygnus	Gas	GDF Suez E&P	2016	2015	44/12	1410
Darwin	Oil	Fairfield Energy Limited	2020	2019	211/27	1900
Edradour	Condensate	Total	2017	2016	206/4a	340
Flyndre	Oil	Maersk Group	2016	2015	30/14	372
Gateway	Gas Storage	Stag Energy	2017	2016	110/3b	800
Glenlivet	Gas Condensate	Total	2018	2017	206/4a	650
Harris (Western Isles)	Oil	Dana Petroleum E&P	2017	2016	210/24a	1280
Maria	Oil	BG International	2016	2016	16/29a	1900
Mariner East	Oil	Statoil	2019	2018	9/11b	1900
Orlando	Oil	Iona Energy Company	2016	2015	3/3	1900
Penguin Area	Oil/Gas	Shell	2019	2018	211/13 & 14	1900
Perth	Oil	Parkmead Group PLC	2019	2018	15/21c	1900

Platypus	Gas	Dana Petroleum E&P	2016	2015	48/1a, 48/1c	1900
Rosebank	Oil/Gas	Chevron Corporation	2019	2017	205/1	6000
Seymour	Oil	BG International	2016	2016	22/05b	1900
Skye	Oil	Fairfield Energy Limited	2018	2017	211/23b	1900
TOTAL						**45,152**

Offshore Wind

There are 15 offshore wind projects in the development pipeline in the UK until 2020, requiring a total investment of £21bn.

Project Name	Capacity (MW)	No of Turbines	Location	Developer	Status	Capital Value (£m)	Construction Start	Fully Commissioned
Rampion	400	116	England	E.ON	Pre-Construction	1345	2016	2018
Burbo Bank Extension	258	32	England	DONG	Pre-Construction	903	2016	2018
Dudgeon	402	67	England	Statoil/Statkraft	Pre-Construction	1500	2016	2017
Race Bank	580	91	England	DONG	Pre-Construction	2000	2016	2018
East Anglia One	714	102	England	ScottishPower/ Vattenfall	Consent Authorised	2000	2018	2020
Walney Extension Phase 1	330	42	England	DONG	Consent Authorised	1155	2017	2018
Neart na Gaoithe	448	64	Scotland	Mainstream Renewable Power	Consent Authorised	1400	2018	2020
Beatrice	664	95	Scotland	SSE/Repsol/ Copenhagen Infrastructure Partners	Consent Authorised	2128	2018	2020
Walney Extension Phase 2	330	47	England	DONG	Consent Authorised	1155	2018	2019
2-B Energy Test Site	12	2	Scotland	2-B Energy	Concept/Early Planning	42	2018	2018
Hywind Scotland Pilot Park	30	5	Scotland	Statoil	Consent Application Submitted	105	2018	2019
Hornsea Project One - Heron Wind	600	86	England	DONG	Consent Authorised	2100	2018	2020
Galloper Wind Farm	336	56	England	RWE/SSE	Consent Authorised	1544	2017	2018
Hornsea Project One - Njord	600	85	England	DONG	Consent Authorised	2100	2019	2021
Moray Firth Eastern Development	504	93	Scotland	EDP/Repsol	Consent Authorised	1800	2020	2022
TOTAL						**21,277**		

Power Transmission

In the UK there will be an expected investment of £8.4bn invested in Power Transmission projects over the value of £25m in the next five years.

Substation Name (Start Route)	Status	Developer	Capital Value (£m)	Commissioning
Dounreay Overhead Lines	Consent Authorised	Scottish Hydro Electric Transmission	166.45	
East Coast Reinforcement - Keith	Concept/Early Planning	Scottish & Southern Energy	166.45	
Elvanfoot	Consent Authorised	Scottish Power Transmission Limited	166.45	
Gretna Substation Wind Farms	Consent Application Submitted	SP Transmission Ltd	166.45	
Harelaw Wind Farm Grid Connection	Concept/Early Planning	SP Transmission Ltd	166.45	
Harrows Law Grid Connection	Concept/Early Planning	Scottish Power Transmission Limited	166.45	
Kilmarnock Overhead Line	Consent Authorised	Scottish Power Transmission Limited	166.45	
Lewis Infrastructure	Concept/Early Planning	Scottish Hydro Electric Transmission	166.45	
Rothienorman Overhead Powerline	Consent Application Submitted	Scottish Hydro Electric Transmission	166.45	
Sloy Line Entry Tower on Overhead Line	Consent Authorised	SP Transmission Ltd	166.45	
Sloy Replacement Towers on Overhead Line	Consent Authorised	Scottish & Southern Power Distribution	166.45	
Sloy Temporary Deviation of Overhead Line	Consent Authorised	SP Transmission Ltd	166.45	
South West Scotland Renewables Connection Project	Consent Authorised	SP Transmission Ltd	166.45	
Bramford Connection Project	Concept/Early Planning	National Grid	166.45	
Cysylltiad Canolbarth Cymru		National Grid	166.45	
East Anglia Offshore Windfarm Connection		National Grid	166.45	
Cysylltiad Gogledd Cymru		National Grid	166.45	
Hinkley Point C Connection Project		National Grid	166.45	
King's Lynn B Power Station		National Grid	166.45	
Mid Wales Connection		National Grid	166.45	
North London Reinforcement Project		National Grid	166.45	
North Wales Connection		National Grid	166.45	
North West Coast Connections		National Grid	166.45	
Richborough Connection Project		National Grid	166.45	
Spalding Connection Project		National Grid	166.45	
Blackhillock	Design & Permitting		266	2018
Deeside	Design & Permitting		266	2016
Gravir	Design & Permitting		1269.2	2018
Gravir	Design & Permitting		130.4	2018

Hawthorn Pit	Planning		266	2019
Hawthorn Pit	Planning		166.45	2019
Hinkley Point	Design & Permitting		266	2019
Hunterston	Design & Permitting		266	2016
New Substation	Design & Permitting		201.45	2017
New Substation	Design & Permitting		35	2017
Norwich Main	Planning		266	2016
Peterhead	Planning		266	2020
Richborough	Design & Permitting		220.05	2019
Richborough	Planning		201.45	2018
St. John's Wood	Design & Permitting		166.45	2018
TOTAL			**8,414**	

Nuclear

There is a forecast £26.8bn investment in nuclear power development projects across the UK (over £25m) to 2020. There are other nuclear projects at concept/early planning phase, including the Sizewell C development in Suffolk, however these are not include here as they are expected to be developed beyond 2020.

Project Name	Capacity (MW)	Location	Developer	Status	Capital Value (£m)	Permit (Year)	Construction Start (Year)	Operation (Year)
Hinkley Point C-1	1670	Somerset	EDF Energy	Approved	8000	2013	2018	2022
Hinkley Point C-2	1670	Somerset	EDF Energy	Approved	8000	2013	2019	2023
Moorside (Stage 1)	1129	Cumbria	NuGeneration (Toshiba and ENGIE)	Concept/ Early Planning	4865.99		2020	2024
Wylfa Newydd 1	1380	Wales	Horizon	Concept/ Early Planning	5947.8	2017	2020	2024
TOTAL	5849				**26,814**			

Carbon Capture and Storage (CCS)

£9.6bn investment is planned to finance four CCS projects forecast for development in the UK until 2020.

Project Name	Country	Capacity (MW)	Developer	Status	Capital Value (£m)	Operation (Year)
C.GEN North Killingholme Power Project	UK	470	C.GEN NV, National Grid	Consent Authorised	1540	2017
Don Valley Power Project	UK	650	2Co Energy Limited, National Grid	Concept/ Early Planning	5000	2019
Peterhead Gas CCS Project	UK	385	Shell, SSE	Concept/ Early Planning	1500	2019

White Rose CCS Project (formerly UK Oxy CCS Demonstration)	UK	426	Alstom UK Limited, Drax Power Limited, National Grid	Concept/ Early Planning	1600	2020
TOTAL		**1931**			**9,640**	

Oil and Gas Decommissioning

There is a forecast £7.3bn investment in oil and gas decommissioning projects across the UK, each with a capital value of over £25m, in the next five years.

Country	Project Name	Field Type	Developer	Decommissioning	Block	Investment (£m)
UK	Atlantic and Cromarty Fields	Gas Condensate	BG International	Under discussion	14/26a & 13/30	917.5
UK	Big Dotty	Gas	ENI UK Limited	Under discussion	48/29	917.5
UK	Brae Area	Oil	Marathon Oil UK Limited	Under discussion	16/07a	917.5
UK	Brent	Oil/Gas	Shell	2016	211/29	917.5
UK	Dawn	Gas	ENI UK Limited	Under discussion	48/29	917.5
UK	Glamis	Oil	Premier Oil PLC	Under discussion	16/21a	917.5
UK	Hewett	Gas	ENI UK Limited	Under discussion	48/28, 48/29, 48/30	917.5
UK	Little Dotty	Gas	ENI UK Limited	Under discussion	48/30	917.5
UK	Goldeneye	Condensate	Shell	On hold	14/29a	-
TOTAL						**7,340**

Gas

Across the UK there is a forecast investment of £9.8bn in Gas projects to 2020. This incorporates Landfill gas and CCGT projects.

Project Name	Capacity (MW)	Subcategory	Location	Developer	Status	Capital Value (£m)	Permit (Year)	Grid Connect-ion
Abernedd	470	CCGT	Near Port Talbot, South Wales	SSE Renewables	Consent Authorised	286.7	2011	2017
C.Gen Killingholme North Power Station	490	CCGT	North Killingholme	C.GEN Killingholme Ltd	Consent Authorised	298.9	2014	2018
Damhead Creek II	1800	CCGT	Damhead Creek, Isle of Grain, Kent	Scottish Power (DCL) Ltd	Consent Authorised	1098	2011	2016
Gateway Energy Centre Power Station	1250	CCGT	London Gateway Logistics Park	InterGen (UK) Ltd	Consent Authorised	762.5	2011	2018
Keadby 2	710	CCGT	Scunthorpe	SSE Renewables	Consent Authorised	433.1	1993	2016

Kings Lynn B	981	CCGT	Kings Lynn	Centrica KL Ltd	Concept/Early Planning	598.41		2020
Knottingley Power Station	1500	CCGT	Knottingley, Yorkshire	Knottingley Power Limited	Consent Authorised	915	2015	
Progress Power Station	299	CCGT	Eye Airfield	Progress Power Ltd	Consent Authorised	182.39	2015	2019
Seabank 3	1200	CCGT	Severnside, near Bristol	SSE Renewables	Concept/Early Planning	732		2021
Spalding Energy Expansion	945	CCGT	Spalding	InterGen (UK) Ltd	Consent Authorised	576.45	2010	2018
Thorpe Marsh	1500	CCGT	Thorpe Marsh	Acorn Power Developments	Consent Authorised	984	2011	2017
Tilbury C	1800	CCGT	Tilbury	RWE NPower plc	Concept/Early Planning	1098		2019
Trafford Power Station	1520	CCGT	Carrington	Wainstones Energy Ltd	Consent Authorised	1200	2010	2018
Hatfield Power Station	800	CCGT	Hatfield, Yorkshire	2Co Power (Yorkshire) Ltd	Consent Authorised	488		2019
Hirwaun Power Station	299	CCGT	Rhigos, South Wales	Hirwaun Power Ltd	Consent Authorised	182.39	2015	2019
TOTAL	15,589					9,835.8		

Transport and Ports

Across the UK there is a forecast investment of £9.3bn in Transport infrastructure projects to 2020.

This investment includes £2,688 in 9 port infrastructure developments as detailed in the table below. Two road developments – A14 at Cambridge and the Norwich distributor road – and two port developments – Harwich and Felixstowe – are located in the East of England.

Project Name	Subcategory	Developer	Capital Value (£m)	Earliest Start Construction
A14 Cambridge to Huntingdon Improvement Scheme	Road	Highways Agency	1500	2016
A160/A180 Port of Immingham Improvement	Road	Highways Agency	109	2015
A63 Castle Street Improvement	Road	Highways Agency	202	2016
A9 Dualling	Road	Transport Scotland	3000	2015
Aberdeen to Inverness Rail Improvements Project	Rail	Transport Scotland	500	2018
ABLE Humber Port - ABLE Marine Energy Park	Port	ABLE	450	
Dibden Bay	Port	ABP	600	
Dover Western Docks Revival	Port	Dover Harbour Board	120	
Harwich International Port / Bathside Bay*	Port	Hutchison Ports (UK) Ltd	300	
Kishorn Port	Port	Kishorn Port Ltd	300	
M4 Junctions 3-12: Smart Motorway	Road	Highways Agency	862	2017
M6 Junctions 16-19: Smart Motorway	Road	Highways Agency	274	2015
Norwich Northern Distributor Road	Road	Highways Agency	148	2015
Port of Felixstowe	Port	Port of Felixstowe	300	
Port of Tyne	Port	Port of Tyne	180	

Port Salford	Port	Peel Ports	138	
Sheerness Port	Port	Royal Haskoning	300	
TOTAL			**9283**	

**subject to developer agreement with Secretary of State for Communities and Local Government.*

Tidal Power

In the UK there is a forecast investment of £1,261m in tidal energy projects over a value of £25m, to 2020.

Project Name	Capacity (MW)	Location	Developer	Status	Capital Value (£m)	Offshore Construction	Operational
MeyGen Inner Sound Phase 1A	6	Scotland	Atlantis Resources	Consent Authorised	51	2016	2016
Sound of Islay	10	Scotland	The Islay Energy Trust	Consent Authorised	30		
Swansea Bay Tidal Lagoon	240	Wales	Tidal Lagoon Power	Consent Authorised	1000	2016	2019
West Islay Tidal Array	30	Scotland	DP Marine Energy	Consent Application Submitted	90		
St. Catherine's Race	30	England	Perpetuus Tidal Energy Centre	Consent Application Submitted	90	2016	2018
TOTAL	**316**				**1,261**		

Wave Power

Across the UK there is a forecast investment of £217m in wave energy projects over the value of £25m in the same time period.

Project Name	Capacity (MW)	Location	Developer	Status	Capital Value (£m)	Permit Year
North-West Lewis	40	Scotland	Aquamarine Power	Consent Authorised	184.4	2013
Milford Haven Wave Dragon Pre-Commercial Demonstrator	7	Wales		Consent Application Submitted	32.27	
TOTAL	**47**				**216.67**	

Appendix D: Mermaid House Building Plans

This appendix provides the building plans for Mermaid House, indicating the current layout and internal features of the building's ground and first floors. It then goes on to show drawings providing a **possible suggested** layout for the refurbishment of the building, indicative of suiting the requirements for the proposed innovation centre once redeveloped for the purposes of the report.

The indicative layout presented in the following drawings includes the following features[5];

Ground Floor

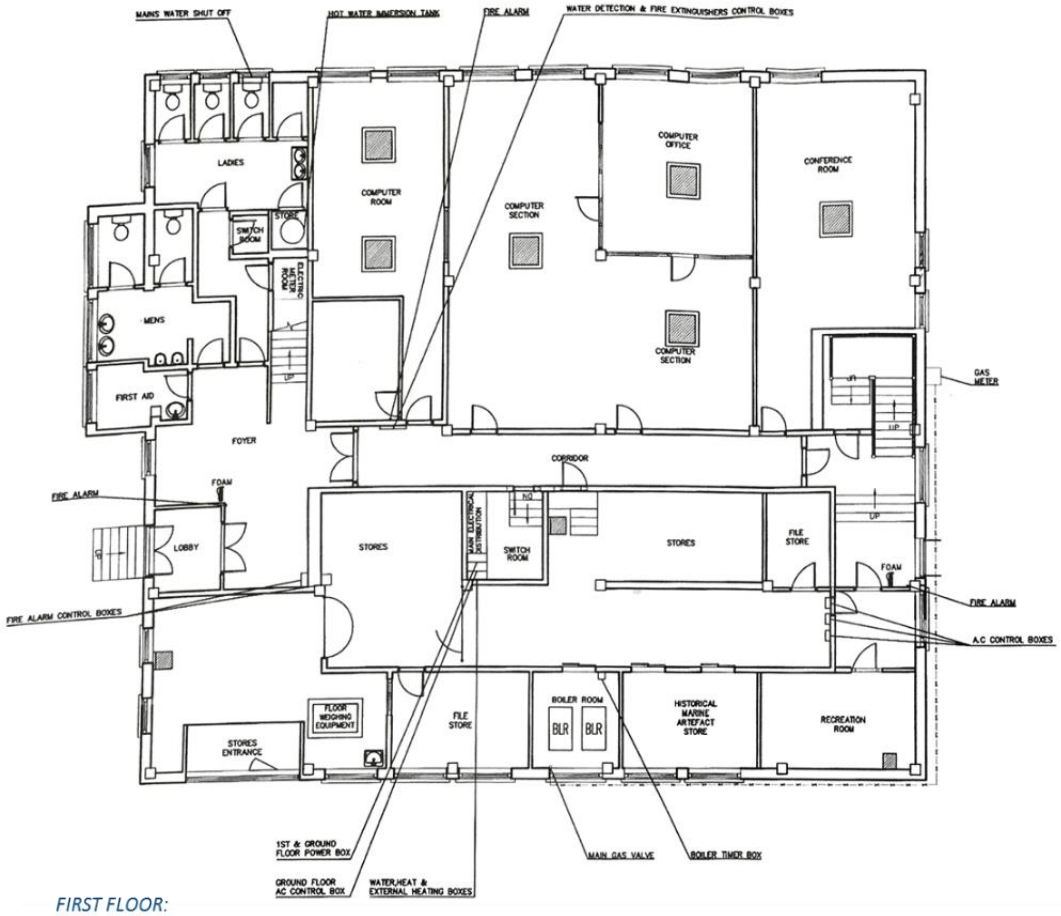
- **Entrance & Reception:** New entrance and reception area with informal meeting space, potentially with new direct access staircase to the first floor, incorporating appropriate DDA compliant access.
- **Centre Management Office:** This office space would be ideally placed to accommodate centre management staff and potential associated business support services.
- **Refreshment and Break out Area:** Refurbished refreshment and breakout area is indicatively shown here, though eventual location and format of this space will be key
- **Lettable Workspace/Office Units:** Lettable workspace/office units, including some large units to accommodate 8 – 10 people.
- **WC and Shower:** Redeveloped high specification WC with shower area indicated here, though location to be considered in further work

First Floor

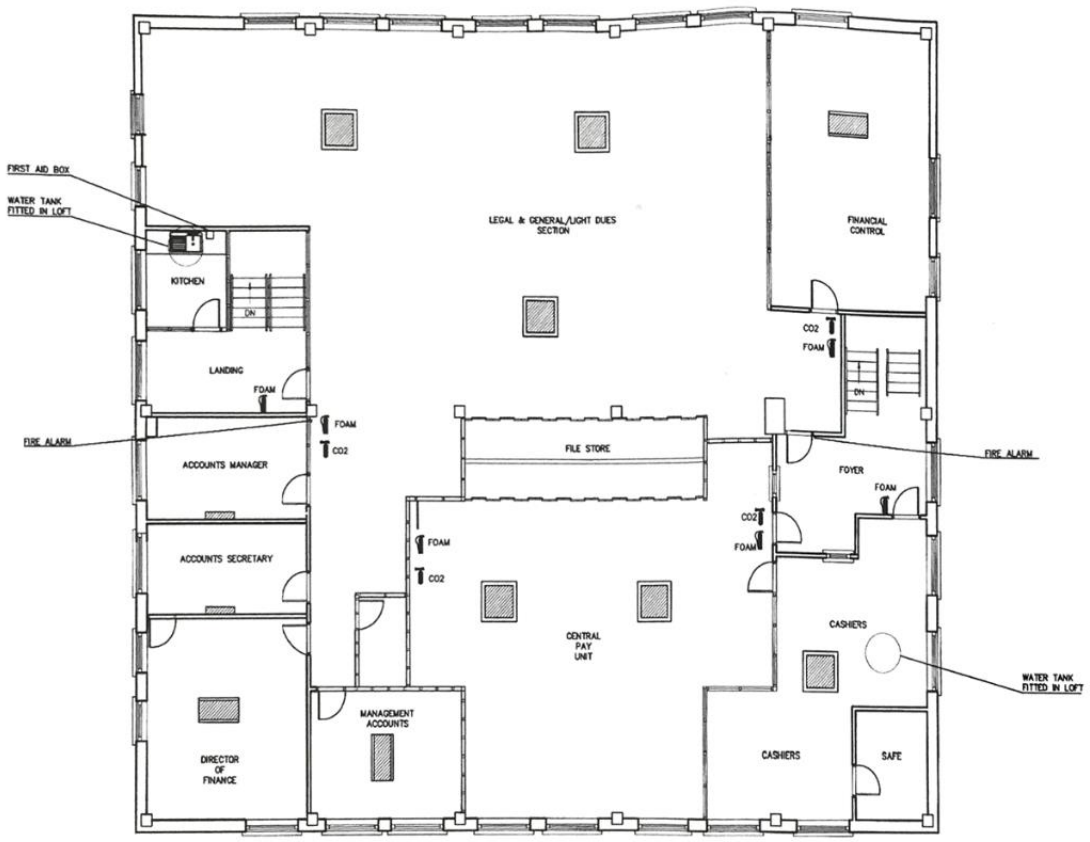
- **New Access from Ground Floor/WC:** location for possible new access from the ground floor reception area. Alternatively this area could be used for additional WC facilities.
- **Meeting Room Space:** This current private office and landing space could be utilised to provide flexible meeting room space for tenants and visitors to the centre.
- **Flexible Open Plan Space:** This large and flexible space has potential to be utilised for lettable co-working space and breakout areas.
- **Refreshment Facilities:** refreshment facilities for use by the first floor accommodation.
- **Flexible Lettable Space:** A potential use for this flexible space would be to provide 1 – 3 small lettable private office units.

[5] NB All the suggested areas and associated works which would be needed above are indicative only, and would be subject to survey and confirmation of whether walls are load bearing.

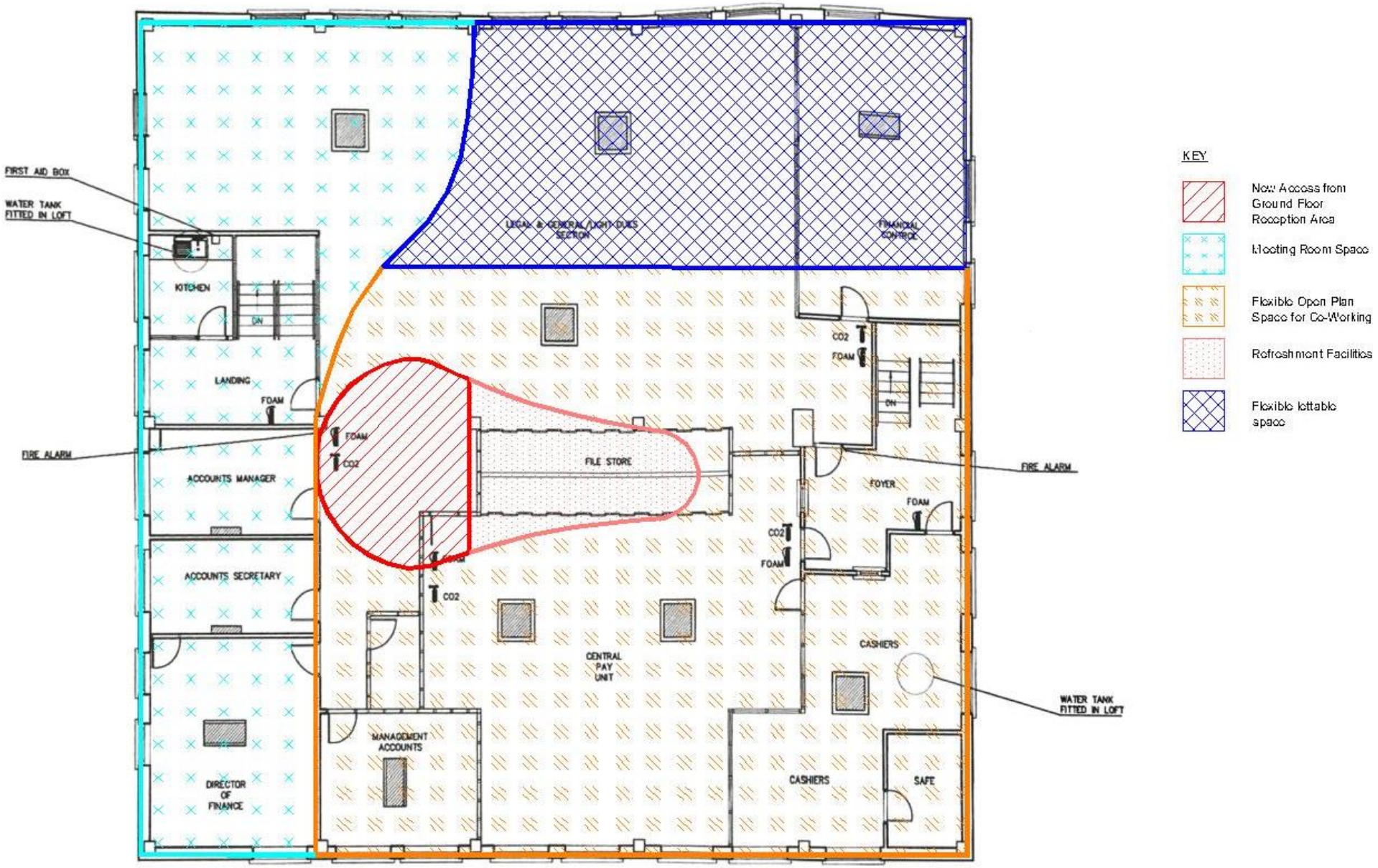
GROUND FLOOR:



FIRST FLOOR:




MAINS WATER SHUT OFF
HOT WATER IMMERSION TANK
FIRE ALARM
WATER DETECTION & FIRE EXTINGUISHERS CONTROL BOXES
LADIES
STORE
SWITCH ROOM
ELECTRIC METER ROOM
MENS
FIRST AID
UP
COMPUTER ROOM
COMPUTER SECTION
COMPUTER OFFICE
CONFERENCE ROOM
COMPUTER SECTION
GAS METER
UP
FOYER
FOAM
FIRE ALARM
LOBBY
STORES
CORRIDOR
MAIN ELECTRICAL DISTRIBUTION
SWITCH ROOM
STORES
FIRE STORE
UP
FOAM
FIRE ALARM
FIRE ALARM CONTROL BOXES
A.C CONTROL BOXES
FLOOR WEIGHING EQUIPMENT
STORES ENTRANCE
BOILER ROOM
BLR
BLR
HISTORICAL MARINE ARTEFACT STORE
RECREATION ROOM
1ST & GROUND FLOOR POWER BOX
GROUND FLOOR AC CONTROL BOX
WATER/HEAT & EXTERNAL HEATING BOXES
MAIN GAS VALVE
BOILER TIMER BOX
KEY
New Entrance & Reception
Centre Management
Refreshment Facilities and Breakout Area
Lettable Office Workspace Units
WC and Shower Area


FIRST AID BOX
WATER TANK FITTED IN LOFT
KITCHEN
DN
LANDING
FOAM
FIRE ALARM
ACCOUNTS MANAGER
ACCOUNTS SECRETARY
DIRECTOR OF FINANCE
FOAM
CO2
FILE STORE
CO2
CENTRAL PAY UNIT
MANAGEMENT ACCOUNTS
LEGAL & GENERAL (LOT) DUES SECTION
FINANCIAL CONTROL
CO2
FOAM
DN
FIRE ALARM
FOYER
FOAM
CO2
FOAM
CASHIERS
CASHIERS
SAFE
WATER TANK FITTED IN LOFT
KEY
New Access from Ground Floor Reception Area
Meeting Room Space
Flexible Open Plan Space for Co-Working
Refreshment Facilities
Flexible lettable space

A.2 APPENDIX B

Harwich Innovation Centre

Draft Memorandum of Understanding

Between:
Trinity House; and
Essex County Council; and
Tendring District Council

There is a clear and acknowledged need to support economic development and jobs growth in and around Harwich. The greatest opportunity, given current market conditions, is linked to: offshore renewables; engineering; marine activity; and logistics.

The parties to this Memorandum of Understanding are committed to working together, and with the: Harwich ports; major industry; supply chain businesses; maritime authorities and other appropriate regulatory bodies; educational establishments; and the public sector, in order to identify and fully exploit the economic opportunities available.

The parties to this Memorandum of Understanding are minded to work together to achieve the successful use of Mermaid House (a currently under-utilised building located in Harwich in the ownership of Trinity House) as an Innovation Centre to host and develop businesses associated with offshore renewables, engineering, marine activity and logistics, and for it to become a catalyst for greater investment and employment in the local economy.

All parties recognise that considerable time and investment will be required to renovate and refurbish Mermaid House in order to equip the building with the facilities and infrastructure required. To this end the parties will seek to support applications for funding where appropriate.

Tendring District Council and Essex County Council are committed to jointly working on this project and (subject to further technical investigation, cost, and leasehold arrangements) are minded to take a lease on Mermaid House to enable the development of the proposed Innovation Centre. The parties acknowledge that any lease will need to be of a length that reflects an adequate level of economic benefit when weighed against the parties' funding contributions.

Trinity House is willing to work with both Councils to achieve this ambition and is minded to allow a period of nine months from the date of this Memorandum of Understanding in which to allow the Councils every opportunity to inform their position and as appropriate, negotiate and sign a lease, provided it is satisfied that sufficient progress is being made. The Councils in turn will make every effort to

achieve this objective within a period of six months from the date of this Memorandum of Understanding.

Tendring District Council owns land (currently leased) in close proximity to operational land owned by Trinity House, which may be helpful in addressing any issues Trinity House may identify with regard to their future car parking and storage requirements.

Signed by:

Tendring District Council: ……

Essex County Council: ……

Trinity House: …… …….....

Date: ……

Assessment of Acquisition/Disposal Feasibility

Assessed by:	Tom Gardiner, Regeneration Manager, Tendring District Council
Date:	23rd March 2016
Site:	Mermaid House

Reason for consideration: To assess the potential of utilising Mermaid House as an Innovation Centre, to foster and encourage economic growth in Harwich.

Location: The Quay, Harwich

Mermaid House is situated in a commanding waterfront position overlooking Harwich Town Pier, and within an area providing a variety of commercial, restaurant, and established residential uses.

The building is located within good proximity to the Harwich Ports (Harwich International Port and Harwich Navyard).

Adjoining uses:

- Office (Trinity House)
- Office (Miranda House)
- Residential (to rear)
- Highway

Planning designation:

- Employment (Office)

Current use: The building is currently under-utilised office accommodation. The ground floor is used for the storage of redundant equipment (furniture and surplus/historic operational equipment) and some archived material. The First floor is currently vacant.

Legal constraints: Yet to be fully researched. However there are no obvious regulatory constraints on the proposed use of the building as an Innovation Centre providing managed workspace.

Service usage/issues: The site is detached and self contained, providing circa 3,400sqft/316m^2 of lettable office space and has ample private car parking within the curtilage of the site. The building is located within a brick perimeter wall and is accessed via metal security gates. Historically the building was used by Trinity House as office and workshop accommodation, but since the construction and operational use of two new buildings (in close proximity to Mermaid House) the building has become surplus to operational requirements.

The building is available to lease but is in need of significant refurbishment (to meet the requirements of its proposed use) which is estimated will cost in the region of £1.3m.

Request for purchase/lease: Proposals to lease the building and to utilise the space as an Innovation Centre providing managed work space are currently under consideration. Any decision to lease the building will be the subject of detailed technical analysis and the preparation of a viable and cost effective business case, for Cabinet consideration.

Corporate Priorities:

Proposals to deliver an Innovation Centre in Harwich with managed work space responds directly to the corporate goals identified within the Council's Corporate Plan (Tendring Life) and to the objectives of its Economic Development Strategy (EDS).

Specifically the Scheme responds to the following Corporate Goals:

- **Corporate Goal 3:** Help children and adults achieve their full potential;
- **Corporate Goal 4:** Address deprivation; and
- **Corporate Goal 6:** Coastal opportunities and protection.

The proposal also responds to the following EDS Objectives:

- **Objective 1:** Supporting Tendring's growth locations by intervening in areas where the potential for economic growth is highest and where there is a strong case for intervention particularly (but not exclusively) in Harwich, Clacton and West Tendring;
- **Objective 2:** Targeting growth sectors, which are best placed to support growth and job creation within the District's economy; and
- **Objective 4:** Supporting modernisation, diversification and growth within the business base, improving innovation and inward investment and creating dynamism in the economy that will make Tendring more competitive and resilient to national and international shock.

Property Strategy Issues: The site is not currently identified within the Draft Property Strategy.

Valuation: Not yet valued.

Other Issues: None at this stage.

Risk Assessment - Should the Project Proceed	**Control – Should the Project Proceed**
A shift in market conditions leading to a slow down in the delivery of energy related projects in the Southern North Sea.	There is little the Council can do to mitigate the impact of this risk given that these issues are influenced by macro economic conditions and national political decisions. However Scottish Power Renewables and RWE have secured contracts for East Anglia One and Galloper and construction work on these wind farms is now scheduled to commence. Planning applications for East Anglia Three are in development and it is expected that East Anglia Two will follow shortly (EA2 being located in closer proximity to Harwich).
An inability to secure the capital funding necessary to fund delivery.	The impact of this risk will be mitigated via commercial negotiations with Trinity House, ensuring that any agreement is structured to limit the Council's exposure and associated liability.
An inability to engage with businesses in the target sectors to occupy space within the Centre.	The impact of this risk will be mitigated via the preparation and implementation of a targeted marketing and publicity campaign, focussed on the businesses the project is seeking to attract to the facility.
Failure to secure tenants in sufficient number and/or sufficient rental income to cover project costs.	The impact of this risk will be mitigated via the preparation and implementation of a targeted marketing and publicity campaign, focussed on the businesses the project is seeking to attract to the facility.
Failure to meet the overall objective(s) identified for the project and/or failure to	The impact of this risk will be mitigated via the appointment of a specialist service contractor

secure the economic growth anticipated.	to manage the facility, providing bespoke information, advice and guidance (business support services) to tenants and prospective users of the Centre. The service contract will be the subject of agreed Key Performance Indicators and (it is planned) the appointed contractor would share the risk and any financial shortfall, should this risk arise.

Conclusion: Leasing Mermaid House would enable the Council to facilitate the delivery of an Innovation Centre providing managed workspace to businesses seeking to locate in Harwich. A study undertaken by Nautilus Consulting (dated January 2016) indicates that there is demand and need for such a facility derived from industries operating in the offshore renewables, engineering, marine, and logistics sectors and from the supply chain businesses serving these sectors.

There is a need to respond to market opportunities in depressed areas such as Harwich, particularly where managed interventions could result in jobs growth, regeneration, and tangible economic prosperity.

It is therefore appropriate to initiate the Property Dealing Procedure in line with established protocols and in turn to undertake the range of technical studies necessary to inform the Council's decision making processes.