





Figure 1: Geoffrey Cox MP at Middle Dock, along with Councillor Ken James, Councillor Claire Hodson, Steve Hearse (Chief Executive) and other Torrridge District Council officers

**The Scheme being presented to MHCLG for our Levelling Up Bid, comprises the redevelopment of Middle Dock, Appledore into the proposed Appledore Clean Maritime Innovation Centre.**

The Appledore Clean Maritime Innovation Centre will establish northern Devon as a global-leading R&D innovation space for clean maritime futures. It will feature cutting-edge research and industry partnerships from the Centre for Future Clean Mobility (University of Exeter) and the University of Plymouth's Marine Institute. The Centre will draw into its flexibly-designed spaces the best innovators from academia and industry, and will take the lead in producing new skills for clean maritime. It will act in collaboration with neighbouring Harland & Wolff Appledore, in harness with the North Devon UNESCO Biosphere Reserve and will offer the private sector high quality spaces to research, develop and commercialise, stimulating growth. The Appledore Clean Maritime Innovation Centre will directly support net zero ambitions for the Celtic Sea Floating Offshore Wind developments and beyond. Ultimately this aims to position UK content at the heart of the international FLOW market in a sector responsible for 2.5% of global emissions.

The centre will act as an anchor for the sector in northern Devon, generating regional clustering opportunities- within northern Devon and across the wider Ocean Futures sphere, in particular connected to the Plymouth Freeport.

Yet the Appledore Clean Maritime Innovation Centre is also about far, far more than the physical building which will be created, and the immediate jobs created, which are currently estimated at over 100 within the centre itself, including catering and maintenance as well as high quality research roles. In a district with the 8<sup>th</sup> lowest median gross weekly earnings for

full-time employees<sup>3</sup> and where 41% of jobs pay under the living wage<sup>4</sup>, with only 21.7% of the Torrridge population qualified to NVQ Level 4 or above<sup>5</sup>, the centre is about changing local mindsets and through that the local economy. That GDP per head in Torrridge is only £17,493 compared to £26,765 in North Devon<sup>6</sup> illustrates the impact of clustering.

Having a visible demonstration of success at the heart of the community, in a region (northern Devon) which has never previously had any university presence, will be transformative, coupled with a level 3-7 marine skills pipeline co-developed in response to the proposal by Petroc (which includes the South West Institute of Technology's Advanced Engineering facility) and the University of Plymouth. Petroc students will be able to utilise the centre's seminar rooms when their courses need access to the waterfront, and we are keen to find ways for local schools to benefit from future use as well.

Crucially the centre will also seek to break the constraints of the low aspiration, low wage economy cycle illustrated below. The approach is backed by the head teachers at Bideford College, Appledore School, The Northam Federation, West Croft School, St Mary's Church of England Primary School, Bideford and St Helen's Church of England Primary School, Abbotsham all wholeheartedly support proposals.

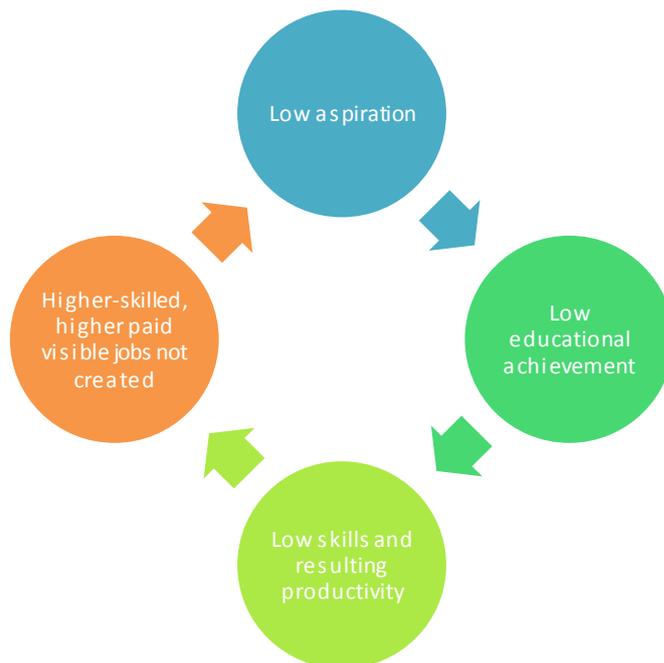


Figure 2: An illustrative chart indicating the low aspiration, low wage economic cycle constraining current economic growth in Torrridge

Delivering on 6 Levelling Up missions the Appledore Clean Maritime Innovation Centre, should be seen as the embodiment of the Levelling Up agenda.

<sup>3</sup> Annual Survey for Hours and Earnings (ASHE), Office for National Statistics, October 2021

<sup>4</sup> Professor Lee Elliot Major, Social Mobility in the South West, April 2022

<sup>5</sup> NOMIS web analysis of 2011 UK Census data

<sup>6</sup> *Local Economic Growth update*, June 2021, University of Exeter

## Building on current economic activity and opportunities

The proposed uses for Middle Dock / the Appledore Clean Maritime Innovation Centre are not a leap into the dark, but stem from current economic activities, including those being undertaken by the Biosphere Foundation, and looking to capitalise on future developments in the region which have been proposed by the Crown Estate.

- Smart Biosphere

The Smart Biosphere is aiming to create a UK first- “a landscape-scale environmental intelligence program harnessing artificial intelligence (AI), big data, IoT remote sensing & satellite earth observation to build real-time and predictive models of the inter-relationships between the agri-food system's land-use, soil health/carbon, run-off, water quality, natural flood management and flood risks”<sup>7</sup>. Working with innovation partners including the Met Office, Environment Agency, Satellite Systems Catapult and with significant industry input from Siemens and AWS the sensor network provides real-time water quality insights to reduce harmful run-off and damage to local ecosystems whilst increasing productivity for agriculture. The work, which received initial project development funding from Torridge District Council, has positioned the Biosphere and northern Devon at the forefront of environmental intelligence and so the University of Plymouth’s focus on this thread opens up future growth opportunities connected to larger scale projects initially in the Celtic Sea and as a future export route.

- Celtic Sea Floating Offshore Wind (FLOW)

The Floating offshore wind opportunity study for the Heart of the South West (May 2022, commissioned by HotSW LEP, Torridge District Council, North Devon Council and Devon County Council) explains “The Offshore Renewable Energy Catapult suggests that FLOW in the Celtic Sea could provide 3,000 jobs and £682m in supply chain opportunities for both Wales and the South West of England by 2030”<sup>8</sup>. This follows the announcement in November 2021 by the Crown Estate of its intention to award 4GW of seabed rights to FLOW projects in the Celtic Sea, which would need to be deployed by 2035. That would equate to enough electricity to power approximately 3million homes.

However, the economic opportunities for FLOW will only be felt on a local basis if we are able to support local businesses in northern Devon and the wider region to be integrated within the supply chain. An accompanying supply chain directory to the report indicated the potential for businesses from Appledore to Bradworthy to Great Torrington would be well positioned to significantly benefit from growth opportunities from FLOW, and the wider economy to grow as a result of the significant need for a range of roles to be filled, from welders to caterers to programmers and electrical engineers. The early-stage of FLOW development in the region provides a range of innovation opportunities to capitalise on a local level, from the needs for a significant fleet of support vessels for Operations and

---

<sup>7</sup> <https://www.biospherefoundation.co.uk/smart-biosphere.html>

<sup>8</sup> Floating offshore wind opportunity study for the Heart of the South West study (May 2022), Executive Summary, page 3

Maintenance through to greater use of aquaculture on the infrastructure itself, with both carbon and economic gains. This again provides a clear justification for the focus of the University of Plymouth and the inclusion of wet lab and aquaculture tank spaces.

The excess power coming onto land also presents additional opportunities for high-energy intensive industries, such as data servers and the development of green hydrogen, a clean energy source.

- Harland & Wolff

“With its existing facilities and links with industry, as well as its recent acquisition by Harland & Wolff, Appledore shipyard is well placed to capitalise on demand for the new vessels that will be needed for offshore wind development”<sup>9</sup>. The regrowth of the shipbuilding and retrofit industry, especially when aligned with the requirements of both the National Shipbuilding Strategy and the Clean Maritime Plan 2050 and the strength of the University of Exeter’s Centre for Future Clean Mobility (CFCM) presents a combined opportunity for Appledore and northern Devon to be positioned at the forefront of the global push for clean maritime.

#### Proposals for the Appledore Clean Maritime Innovation Centre

Middle Dock therefore also presents a unique opportunity to act as an anchor for the future growth of these strands, bringing them together to create a focus for innovation, collaboration and sector growth. This in turn provides a stronger draw to the region for FLOW developers and strengthens their local supply chain content whilst also developing future export opportunities through being ahead of the global curve for clean maritime.

As part of the proposed centre there will be;

- Workshop and office space for the University of Exeter’s Centre for Future Clean Mobility (CFCM)
  - Focus: Development of clean maritime powertrains to support Net Zero ambitions for Floating Offshore Wind and beyond, from fishing fleets to MoD.
  - Objective: To establish Appledore as a global centre for clean shipbuilding and to establish Celtic Sea FLOW as an exemplar for clean energy development.
- Office space for the University of Plymouth.
  - Focus: 1) Environmental intelligence 2) Support for aquaculture, in partnership with Biosphere Foundation 3) Knowledge Transfer Partnerships, forging links between local businesses and support from university academics to strengthen the commercialisation of ideas
  - Objectives:
    - To strengthen regional positioning within the emerging £9bn environmental sensing global market

---

<sup>9</sup> Floating offshore wind opportunity study for the Heart of the South West study (May 2022), Executive Summary page 5

- To support the aquaculture (including seaweed) industry with both economic and environmental gains

Proposals will also include;

- 15 rentable private office spaces and additional open plan office space creating 48 working spaces and additional meeting capacity for 32
- 3 rentable innovation workshops, totalling 292 sq m
- Wet lab (40sq m), aquaculture tank (200sq m)
- A new-build quay wall
- A retractable bridge across the slipway to connect the site to Harland & Wolff.
- Improved transport access to the site, including electric vehicle and eBike charging.
- Significant renewable energy generation
- A co-developed skills pipeline between Petroc and University of Plymouth from age 16 to degree level
- We are also exploring the potential for any required carbon offsetting to be invested into the North Devon UNESCO Biosphere's Natural Capital Marketplace.

### Architectural designs

The architectural designs have been developed with Stride Treglown, Bristol and Plymouth-based architects who have delivered equivalent projects, such as iAero in Yeovil, the Met Office Data Centre in Exeter and the Institute for Advanced Automotive Propulsion for the University of Bath. The intention is for these plans to be further developed during the summer and autumn of 2022 with a view to applying for Planning later in 2022, following suitable procurement processes and wider consultation. This will strengthen the deliverability scoring of the project and reduce the full length of the scheme given the requirements to defray Levelling Up funding by March 2025.

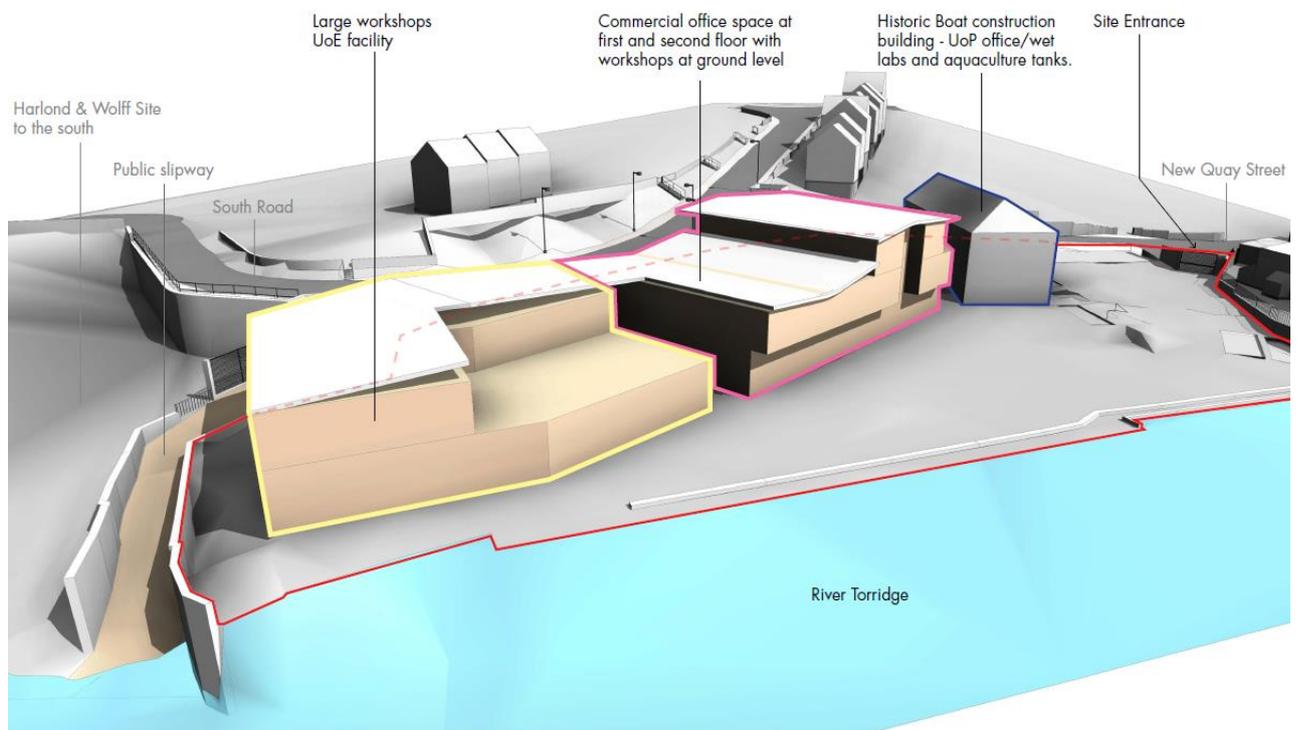
### Designs

The site and its uses have been designed as an innovation space, providing a buffer zone between the residential areas and the heavier industrial uses of Harland & Wolff at New Quay.

Key elements to consider:

- The architects have designed an entrance into the building from the road, unlike the current site which is hidden by a high stone wall. This is designed to ensure that any walking past can feel that it is not hidden away but that they might be able to go inside, if not now then at some point in the future, strengthening the aspirational psychology. This will be furthered by designs being focused on a combination of timber and glazing to link to maritime heritage but also ensure that there is a clear sense of activity and "industry" within.

- The aquaculture tanks and wet lab are currently envisaged in being within what is currently a dilapidated old stone barn. Not only will this maintain the heritage links to the site's past it will also have positive carbon implications.
- The seminar rooms will serve both as meeting rooms for the site's users but will also be available for external hire. They will also double as a training facility when Petroc or the universities need to bring students onto site for practical activities requiring the waterfront access.
- There will be some on-site parking (including electric vehicle charging points), although there will also be increased provision for active travel, with eBike docks incorporated. Discussions with Devon Highways are already underway to ensure that this not only supports but also stimulates further investment into active travel in the area.



**STRIDE TREGLOWN**

CLIENT: Torridge District Council  
 PROJECT: 155456 Middle Dock, Appledore  
**MASSING SKETCH 01**

Figure 3: A block diagram massing sketch illustrating the nature of proposed development on Middle Dock. Maximum heights are proposed as being lower than existing structures and so will improve river vistas from surrounding residential areas.

The project looks to create flexible, and future-proofed, spaces to facilitate innovation and collaboration for and between both Higher Education and private sector businesses. The goal will then be to support business growth and as a result create clustering opportunities within the local economy- for example at Bideford Business Park. This clustering will be critical to future growth potential in the region, with the Appledore Clean Maritime Innovation Centre designed to act as a stimulus, supporting businesses to innovate, commercialise and grow, for which additional future employment spaces will be crucial.

A process of operational modelling has also been undertaken in order to ensure that the proposals are viable and do not create a negative impact on the long-term finances of Torridge District Council. This has been undertaken based on the development and operations of existing equitable innovation centres in other sectors. It is essential that the centre be designed to ensure financial viability as well as being a catalyst for wider economic growth across the region. Borrowing will be required from the Public Works Loans Board and these borrowing costs have been factored into this operational model, with repayments paid for from income returns from the Appledore Clean Maritime Innovation Centre.

Further designs and visualisations will be available in advance of the next Full Council meeting on 4<sup>th</sup> July to seek approval for the bid.

## Options appraisal

In order to ensure that we are optimising the blend of uses and users on site an options appraisal was undertaken, followed by a wider expression of interest process with potential university partners.

<b>Option</b>	<b>Pro</b>	<b>Con</b>
Do nothing	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• No opportunities for economic development</li> <li>• No skills growth</li> <li>• No job creation</li> <li>• Derelict waterfront site with cost implications to TDC</li> </ul>
Industrial unit build out	<ul style="list-style-type: none"> <li>• High-level revenue generation for TDC</li> <li>• Reasonable level of job creation, mostly at mid-salary point</li> </ul>	<ul style="list-style-type: none"> <li>• No clustering potential for sectoral growth</li> <li>• No skills growth due to lack of specialisation / clustering</li> <li>• No impact on local pride or aspiration</li> </ul>
Commercial innovation centre	<ul style="list-style-type: none"> <li>• High-level revenue generation for TDC</li> <li>• Strong level of job creation, mostly at mid to high salary point</li> </ul>	<ul style="list-style-type: none"> <li>• Limited attractiveness of the site beyond river-front appeal</li> <li>• No clustering potential for sectoral growth</li> <li>• Significant risk of underutilisation</li> <li>• No skills growth due to lack of specialisation / clustering</li> </ul>
University of Exeter clean maritime propulsion sole occupancy on site	<ul style="list-style-type: none"> <li>• Significant impact on local pride and community aspiration</li> <li>• Growth opportunity for Harland &amp; Wolff</li> <li>• Some potential clustering opportunities</li> <li>• Strong level of job creation, including a considerable number of highly skilled roles</li> </ul>	<ul style="list-style-type: none"> <li>• Limited revenue returns for TDC</li> <li>• Does not leverage the attractiveness of a global-leading HE partner to reinforce existing environmental intelligence sector work</li> <li>• Limited skills growth</li> <li>• Risk of future withdrawal by University of Exeter</li> </ul>
University of Plymouth environmental intelligence and aquaculture sole occupancy on site	<ul style="list-style-type: none"> <li>• Significant impact on local pride and community aspiration</li> <li>• Growth opportunity for Smart Biosphere</li> <li>• Some potential clustering opportunities</li> <li>• Supports some skill pipeline growth with Petroc / University of Plymouth</li> <li>• Strong level of job creation, including a considerable</li> </ul>	<ul style="list-style-type: none"> <li>• Limited revenue returns for TDC</li> <li>• Does not leverage the attractiveness of a global-leading HE partner to support clean propulsion opportunities</li> <li>• Limited skills growth</li> <li>• Risk of future withdrawal by University of Plymouth</li> </ul>

	number of highly skilled roles	
Combined University of Exeter, University of Plymouth and commercial innovation spaces	<ul style="list-style-type: none"> <li>• Considerable impact on local pride and community aspiration</li> <li>• Growth opportunity for Harland &amp; Wolff, Smart Biosphere and wider aquaculture in the region, including seaweed</li> <li>• Strong clustering opportunities, leveraging the attractiveness of global-leading HE partners to attract private sector growth in northern Devon</li> <li>• Delivers on the SW IoT objectives</li> <li>• Supports Petroc's Advanced Engineering commitments for SW IoT</li> <li>• Very strong level of job creation, including a considerable number of highly skilled, high salary point jobs</li> <li>• Risk of 1 university partner withdrawing in the future is mitigated</li> </ul>	<ul style="list-style-type: none"> <li>• Limited revenue returns for TDC</li> </ul>

### Proposed bid

Torrige District Council's proposed bid to the Levelling Up Fund will seek funding support from Full Council on 4<sup>th</sup> July, 2022. Figures at this current stage of reporting are indicative and have not yet received detailed Quantity Surveyor input. Operating model figures are based on the development and operation of other innovation centres. Inflation has been factored into the figures. As of 26.5.2022 the funding ask will be approximately £15m, which would include a Torrige District Council match funding contribution of at least 10%. This will include land value as a contribution.

### Timetable

4 <sup>th</sup> July, 2022	Full Council approval to be requested
6 <sup>th</sup> July, 2022	Levelling Up Fund bid submitted
Summer / autumn 2022	Further design works
	Full Planning submission
	Further investigations into relocation of Waste and Recycling fleet
October / November 2022	Expected Levelling Up funding announcement
Centre opening	Summer 2025

### **3. IMPLICATIONS**

#### Legal Implications

To be evaluated and managed through the process of bid preparation and project.

#### Financial Implications

As of 26.5.2022 the funding ask will be approximately £15m, which would include a Torridge District Council match funding contribution of at least 10%. This will include land value as a contribution.

It is essential that the centre be designed to ensure financial viability as well as being a catalyst for wider economic growth across the region. Borrowing will be required from the Public Works Loans Board and these borrowing costs have been factored into this operational model, with repayments paid for from income returns from the Appledore Clean Maritime Innovation Centre.

#### Human Resources Implications

Delivery of Middle Dock will require significant input from the Economic Development and Major Projects teams, whilst also liaising with the Estates, Legal and Finance teams. Ongoing recruitment considerations within the teams will take into consideration the necessary involvement in this project.

#### Sustainability/Biodiversity Implications

Full ecology studies, including for winter birds and otters, will need to be commissioned as part of the Planning process. An initial ecology study has been undertaken, along with additional bat surveys in order to prepare for the initial cleansing of the site to remove asbestos and improve safety for staff on site.

#### Equality/Diversity

The site is designed to build aspiration and opportunity for all residents in the region, supporting the goals of the Northern Devon Equality Plan developed in spring 2022 by NORDAB, the collective of secondary headteachers from across northern Devon.

#### Risk Management

Without the support of Members, Officers and Full Council, there is the key risk that Middle Dock will not receive the substantial amount of financial grant funding from the Levelling Up Fund. Approval to underwrite the co-funding is a key aspect of the deliverability rating of the scheme and will enable the project to develop significant momentum.

The nature of the scheme proposed seeks to mitigate the financial exposure of the Council to substantial amounts of financial risk. The scheme seeks to balance revenue returns with the less financially beneficial Higher Education partners in order to create a financially viable centre, which has been the core goal from the outset and was a key part of the architects' briefing. An external consultant has also been brought in who has developed similar financial models for other innovation centres across the South West.

Torrige District Council will seek to supply a shell building for future tenants rather than provide a fully kitted-out facility, thus lessening the financial burden and risk on Torrige District Council. Specialist equipment will be provided through alternative clean maritime funding streams, such as the ongoing Clean Maritime Demonstration funding calls which both universities have previously been successful with.

There is also a significant reputational risk to Torrige District Council of being seen to not support regeneration or boost its local economy in the post-Covid-19 world. This submission complies with a significant number of our local, and wider national, strategic commitments. It builds on previous detailed community and partner engagement prepared for the Future High Street and Levelling Up fund submissions.

A full Risk Register has been compiled for the submission.

### Compliance with Policies and Strategies

This project delivers upon a significant range of local and national strategies as well as high-level national studies:

- The North Devon and Torrige Local Plan, 2018 - 2031 stipulates:
  - “Appledore will develop further as a centre for maritime activities. The development of marine based industries and a quality tourism offer will contribute to re-balancing Northam's community and add economic value”
  - “Within northern Devon, high-value jobs in business, education and research, those supporting a low carbon economy and other key growth sectors will be encouraged in sustainable locations”.
- The **Torrige District Council Strategic Plan**, 2020-23 (Annex 18), which states as the first objective an ambition to “promote aspiration and growth to create a vibrant culture and thriving economy with quality jobs”
- The **Northern Devon- A Road to recovery** prospectus (May, 2021) contains 4 core strands which are all enhanced through the proposals- Innovation and Ideas, Skills and aspirations, Business environment and Connected Communities.
- **Northern Devon Social Equality Plan** (March 2022) which “includes the creation of strong pathways to higher technical, apprenticeship and degree level study that will match the ambition we will ignite in our young people”, with the establishment of university-level provision in the region at the heart of ambitions in order to “map pathways for young people to graduate-level professions” within the region, as well as accompanying “higher technical qualifications and degree apprenticeships as well as taught programmes of relevance to the national and local high skill labour market”,

with pathways through from primary school to secondary, FE and into both employment and HE routes within the local economy, preventing generation-repeating loss of young talent from the area and diminishment of local intangible capital.

- The **Team Devon Covid-19 Economy and Recovery Prospectus** seeks support for businesses, for the people and workforce who drive our economy forward and for towns and rural communities- again, all delivered through Middle Dock's focus on R&D, productivity, skills and higher quality, sustainable employment.
- **The HotSW LEP Build Back Better Plan** also has a focus on skill development for "People and Ideas", supporting training and development of a more vibrant "Business Environment".
- The **Heart of the South West LEP's Strategic Economic Plan 2014-2030** by (a) "creating conditions for growth", "(b) maximising productivity & employment" (through a new 'strategic employment site' and support for 'reaching new markets') and "(c) capitalising on our distinctive assets". Within this it will also provide avenues to strengthen the **Heart of the South West LEP's Local Industrial Strategy**.
- Crucially these proposals seek to further the ambitions and local profile of the **Torridge District Climate Emergency declaration** (2019), with the drive to further the Net Zero ambition locally, regionally and internationally at the heart of the ambition.
- The **One Northern Devon, 10 Year Quality of Life Strategy – 2020-2030**, New Devon CCG, delivering the vision that "aspirations are achieved through equal access to the best education & employment".

#### Data Protection (GDPR) Implications

No personal data is being collated / collected.

#### Lead Member Views

Date of Consultation- 26.5.2022

The Appledore Clean Maritime Innovation Centre at Middle Dock is an exciting project which positions businesses in Torridge and across northern Devon at the front of maritime innovation. We're a traditional maritime community and need to be proud of that, but also use the opportunities presented by the growth and investment in floating offshore wind generation to create good jobs and employment for the people of the region that also taps into the appetite for cleaner, carbon reducing solutions

#### Council Leader Views

Date of Consultation- 30.5.2022

The Celtic Sea has previously been overlooked for fixed offshore wind development largely due to seabed depths. However the current need for energy independence, recent developments in energy markets, and also floating offshore wind (FLOW) technology have reignited the likelihood of significant investment in new installations, many of which are already in the advanced planning stages.

The opportunities for the region could be as big as the supply chain built around the Hinkley C powerplant development in Somerset, which has had a huge impact on local jobs and business prosperity spanning many years and that continues to this day. We need to ensure that we stay ahead of the game as the sector is already moving and developing very quickly. It's great to be collaborating with our partners at Heart of the South West LEP (HotSW), academic institutions, the maritime sector including Maritime UK (SW), local businesses and other public sector bodies in an integrated approach that has such huge potential. We hope that this bid will be the catalyst that unlocks the investment to bring these plans to fruition.

#### **4. CONCLUSIONS**

The Appledore Clean Maritime Innovation Centre creates the potential for significant economic and social gains to Appledore and the entire northern Devon sub-region, with wider ramifications across Devon and the South West. The Centre stands to not only attract the sub-region's first ever university presence but also attract both well-established industry partners and innovative new businesses. The impact on local community pride and the resulting impact on aspiration, potentially on future educational attainment, and future economic growth, are all unparalleled for the area.

#### **5. RECOMMENDATIONS**

That Members:

- Note the contents of the report and the ongoing development of the Levelling Up fund round 2 bid for Middle Dock / the Appledore Clean Maritime Innovation Centre.

#### **SUPPORTING INFORMATION**

Consultations:	Date of Consultation – 27.5.22 Officers Consulted – Chief Executive, Head of Communities and Place, Head of Legal and Governance, S151 Officer
Contact Officer:	Economic Development Officer Major Projects Manager