

# ABERDEEN CITY REGION DEAL

ANNUAL REPORT  
APRIL 2021 - MARCH 2022

**ABERDEEN CITY REGION DEAL:**  
Powering Tomorrow's World



Scottish Government  
Riaghaltas na h-Alba  
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**#ABZdeal**

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# 1. ABERDEEN CITY REGION DEAL OVERVIEW

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The Aberdeen City Region Deal is one delivery mechanism for the Region's economic vision. This vision reflected the Scottish Government Economic Strategy (2015) for achieving increased sustainable economic growth. The two mutually supportive objectives of boosting competitiveness and tackling inequalities are underpinned by four key strategic priorities to drive growth – Investment, Innovation, Internationalisation and Inclusive Economic Growth.

The Deal has evolved in line with the refreshed Regional Economic Strategy and alignment to Scotland's National Strategy for Economic Transformation.

Aberdeen City Council, Aberdeenshire Council and Opportunity Northeast, together with the UK Government and Scottish Government, are working together to address the challenges currently facing the Region and to capitalise on the substantial opportunities here.

Follow this link to read the City Deal Agreement: [www.abzdeal.com](http://www.abzdeal.com)

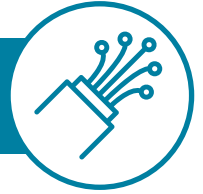
# INCLUSIVE ECONOMIC GROWTH

The Aberdeen City Region Deal has hosted **6 student placements, 7 apprenticeships, 17 Internships, 5 Career Ready students** and **2 UK Government Kickstart schemes**



In 2021/22 the Deal Full Fibre project **won the Social Value Category for procurement** in the “Go Awards” (Social Value Category)

**75% of City residents have access to CityFibre** with at least four ISP’s, stimulating the market, and driving down costs, making good connections accessible and affordable



Development of proposals for **innovative transport pilot projects** aimed at providing inclusive transport connectivity, including Transport Mobility Hubs supported by Digital Applications

The BioHub main construction phase provides **more than 100 jobs** in the city and creates **inspiring career pathways** for young people



The Aberdeen City Region Deal Integrated Impact Assessment considers the Public Sector Equality Duty and Fairer Scotland Duty, identifying impacts (positive/negative/neutral) and applicable mitigation measures. It is reviewed bi-annually.

The Deal Partners have a shared approach to positive procurement including community benefits clauses within all contracts.

Joint Committee members, Programme Board and Project Managers have all undertaken Equalities Training delivered by the Equalities Commission. Access to this training is available for new members.

In early 2022, the Aberdeen City region Deal PMO team hosted 3 RGU student placements for a period of 6 weeks, on a part-time basis.

*“We want to thank you for the opportunity to participate in this project. We believe that the task entrusted to us will extend our knowledge of the organisation of public funds and city settlements in the UK. The overall communication between the mentor and the team was excellent, weekly meetings and the structure of our work allowed us to finish the report on time. We are very grateful for the time devoted to us and the mentor’s support.”* RGU Students



*In February 2022, the Aberdeen City region Deal hosted RGU placement students. Picture shows left to right: Lucy Scott, Krystian Bielez, Aigul Gray*



## 2. FINANCIAL STATEMENT

The **only Deal** signed to date with a **significant Private Investment** of **59%** which has **grown to 67%**



The Deal envelope is now worth **£100.1 billion** (excluding MOU) - **68%** of the available resources have been expended to date

### ABERDEEN CITY REGION DEAL PROGRAMME FUNDING 2016

Total Programme Funding - Original Deal						
(£'000s)	UKG/SG	Councils	Universities	Private Sector	Others	Total
Net Zero Technology Centre (formerly OGTC)	180,000	0	23,500	116,400	34,200	354,100
BioHub	20,000	0	0	7,000	11,000	38,000
Food Hub (SeedPod)	10,000	0	0	8,050	2,050	20,100
Digital Theme	10,000	7,000	0	15,000	0	32,000
Strategic Transport Appraisal	5,000	2,000	0	0	0	7,000
Transport Links to the New South Harbour	25,000	0	0	0	0	25,000
Aberdeen Harbour Expansion	0	11,000	0	339,000	0	350,000
<b>Total</b>	<b>250,000</b>	<b>20,000</b>	<b>23,500</b>	<b>485,450</b>	<b>47,250</b>	<b>826,200</b>

Image © Ross McMahon

In addition to the City Region Deal Funding, the Scottish Government as part of a Memorandum of Agreement, announced a further £254million of funding.

- The Transport Theme was allocated £224million additional investment to be made in the North East of Scotland.
- £20million Infrastructure Funding was allocated, intended to release sites of strategic importance and provide certainty on the £130million affordable housing supply grant.

In 2018, City Fibre and Vodafone announced a £40million investment to make Aberdeen a Gigabit City through a Fibre to the Premises (FTTP) Programme. In 2022, City Fibre announced an additional investment of £19million to roll out fibre to the premises, bringing the total private investment to £59million, an increase of £44million compared to the Deal's original £15million budget for private contributions.

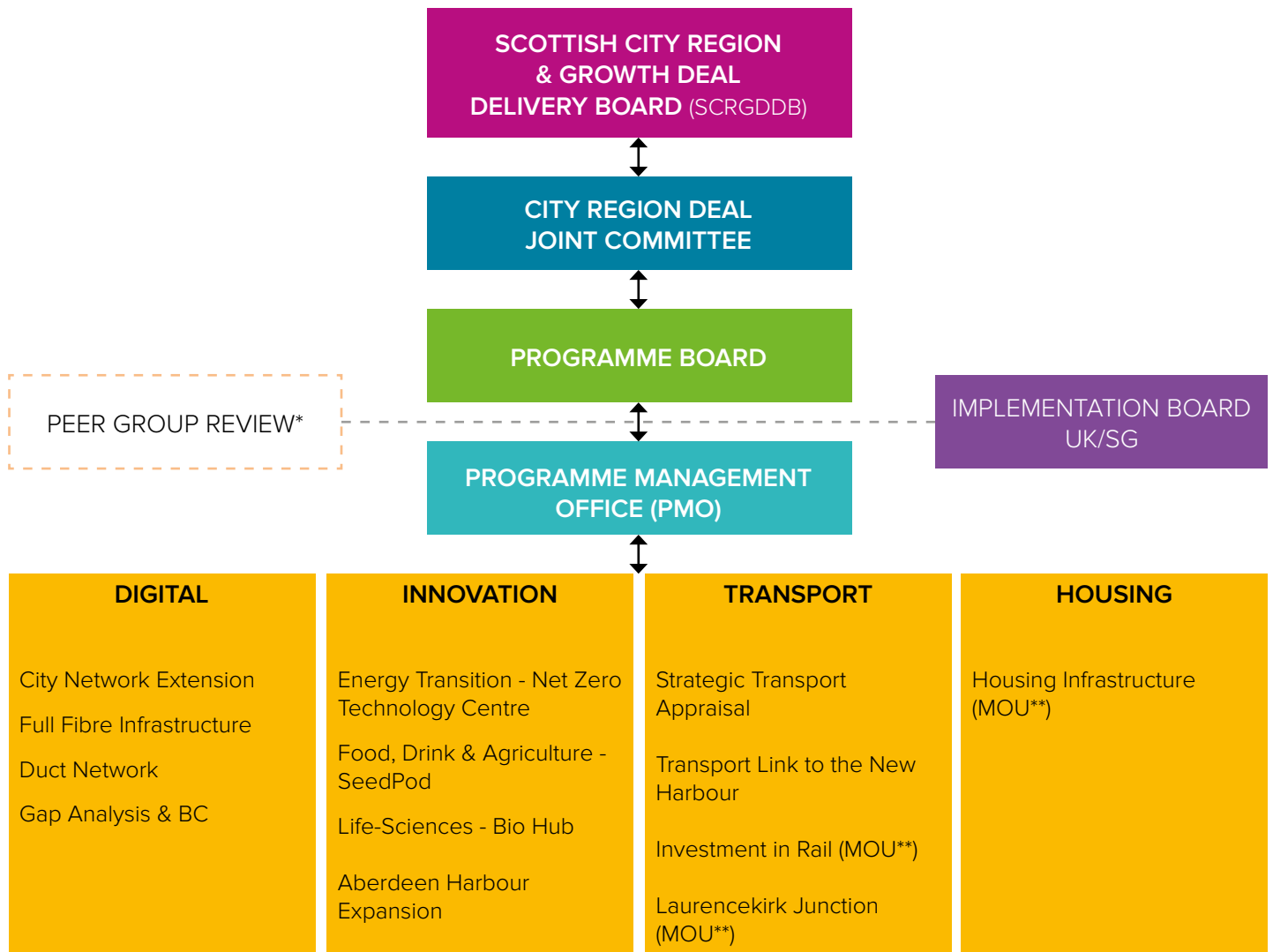
In March 2022, Scottish Enterprise confirmed £2million of new funding to support the final fit-out of BioHub. There has been an increase in private sector contributions for The Net Zero Technology Centre, Digital and Harbour worth 67% of the revised Deal forecast of £1.001billion.





### 3. GOVERNANCE AND ACCOUNTABILITY

The Aberdeen City Region Deal Governance Structure reflects the links between the City Region Deal and Housing Infrastructure fund under a separate Memorandum of Understanding with the Scottish Government.



#### Aberdeen City Region Deal Stakeholders

\*As required to develop Business Cases  
 \*\*MOU - Memorandum of Understanding





## JOINT COMMITTEE

The Joint Committee drives and governs the implementation of the City Region Deal programme and its links to the Regional Economic Strategy. It works to maximise the economic benefits of the Deal. It is made up from three Aberdeen City Council Councillors, three Aberdeenshire Council Councillors and three Opportunity North East Board Members.

## PROGRAMME MANAGEMENT OFFICE (PMO)

The PMO reports directly to a Programme Board which oversees the operations of the Deal, and a formal Review is held between the Programme Board and UK/SG annually known as the Annual Conversation

The reporting schedule is set out in the Annual Grant Offer Letter by the UK/SG and includes:

- A Monthly report and meeting to discuss the Financial spend and forecast
- A Quarterly report and meeting to discuss the Finance, Milestones, Benefits, Risks & Issues
- A Quarterly update and meeting to discuss Communications
- Check Point Reviews for each project

Annually the PMO provides:

- an annual report,
- updated implementation Plan, and
- updated Benefits Realisation Plan.

The PMO is also part of a wider City & Growth Deals UK PMO group that meets regularly.

The Aberdeen City Region Deal PMO is audited internally bi-annually and has taken part in a SG audit relating to the Deal.

## REGIONAL PARTNERS

The Digital, Transport and Housing Themes have working groups which oversee and drive forward the projects. Aberdeen Harbour, Net Zero Technology Centre, BioHub and SeedPod are each governed by their own Board.

## 4. GEOGRAPHICAL OVERVIEW

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The North East of Scotland has a track record as one of the most investable, productive and entrepreneurial economies in the UK, with high levels of business start-up, research and development, exports and disposable income. The First Minister, Nicola Sturgeon, has said that she wants the North East of Scotland to reposition as the Net Zero Capital of Europe. (28 February & 25 April 2022). On announcing support for the Global Underwater Hub and ETZ, Chancellor, Rushi Sunak, said it is vital to boost Scotland's transformation into a green energy hub and deliver the UK Government's commitments on net zero (1 March 2021).

The Aberdeen City Region Deal projects are located on the following plan.



Image © Felix Mooneeram

\* Being delivered via Net Zero Technology Centre

Simulator  
National Decommissioning Centre \*



National Decommissioning Centre  
Newburgh \*



National Subsea Centre  
Dyce \*



SeedPod  
Craibstone




Harbour  
Aberdeen Harbour South



BioHub  
Foresterhill Campus



Net Zero  
Technology Centre  
Queens Road



★ Digital

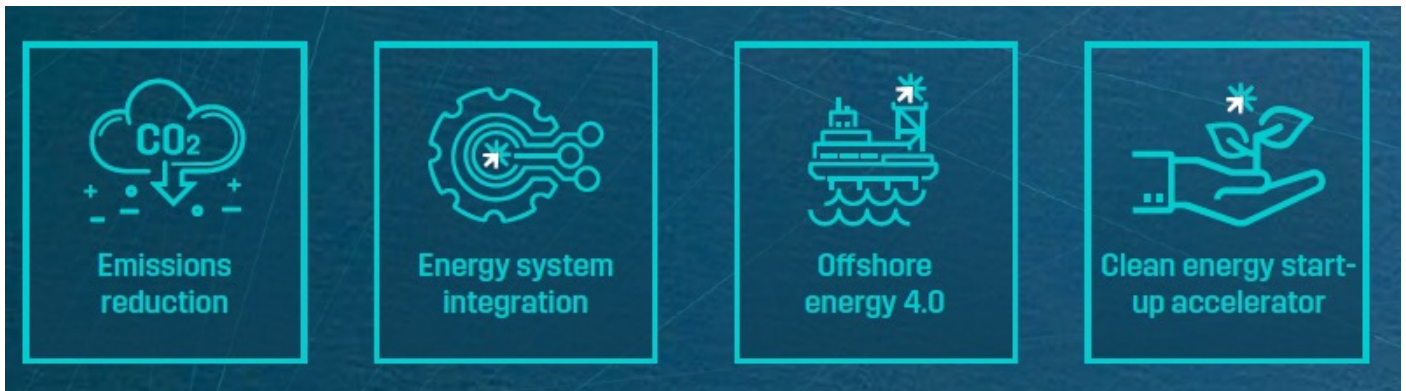


## 5a. NET ZERO TECHNOLOGY CENTRE

The Net Zero Technology Centre has continued to work with its partners to inspire creativity, drive innovation, and secure support needed to deliver sustainable energy long term.

To better reflect its purpose and technology vision, in July 2021, the Centre changed its name from OGTC to Net Zero Technology Centre (NZTC). NZTC is focused on developing and deploying technology that aims to reduce emissions from existing facilities, unlocks the full potential of an integrated energy system, propels the energy industry towards a digital, automated future and accelerates clean energy start-ups to build a thriving supply chain.

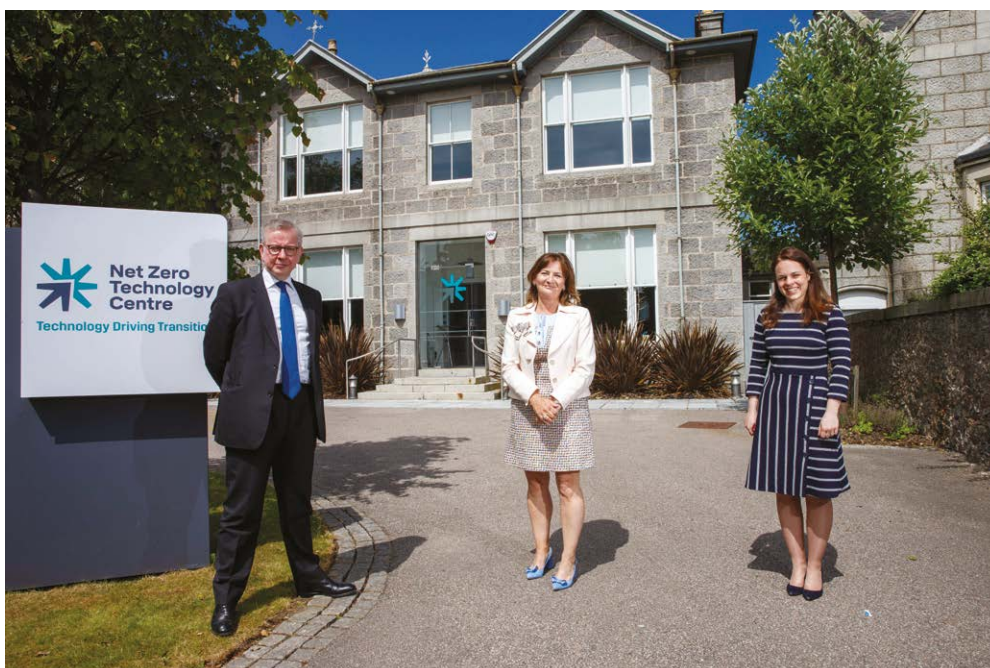
Four programmes accelerating the transition to deliver a reimaged North Sea:



*"I fully support the Net Zero Technology Centre rebranding, which aligns with their fresh purpose of supporting the oil and gas industry to develop and deploy technology to accelerate the transition to an affordable net zero North Sea.*

*"They are also one of our key partners in the Aberdeen City Region Deal, which is backed by £125 million of Scottish Government funding over 10 years, contributing to the region's economic recovery by creating jobs and providing the commercial infrastructure to support and attract businesses to Aberdeen and the surrounding areas."*

**Cabinet Secretary for Finance and the Economy Kate Forbes**

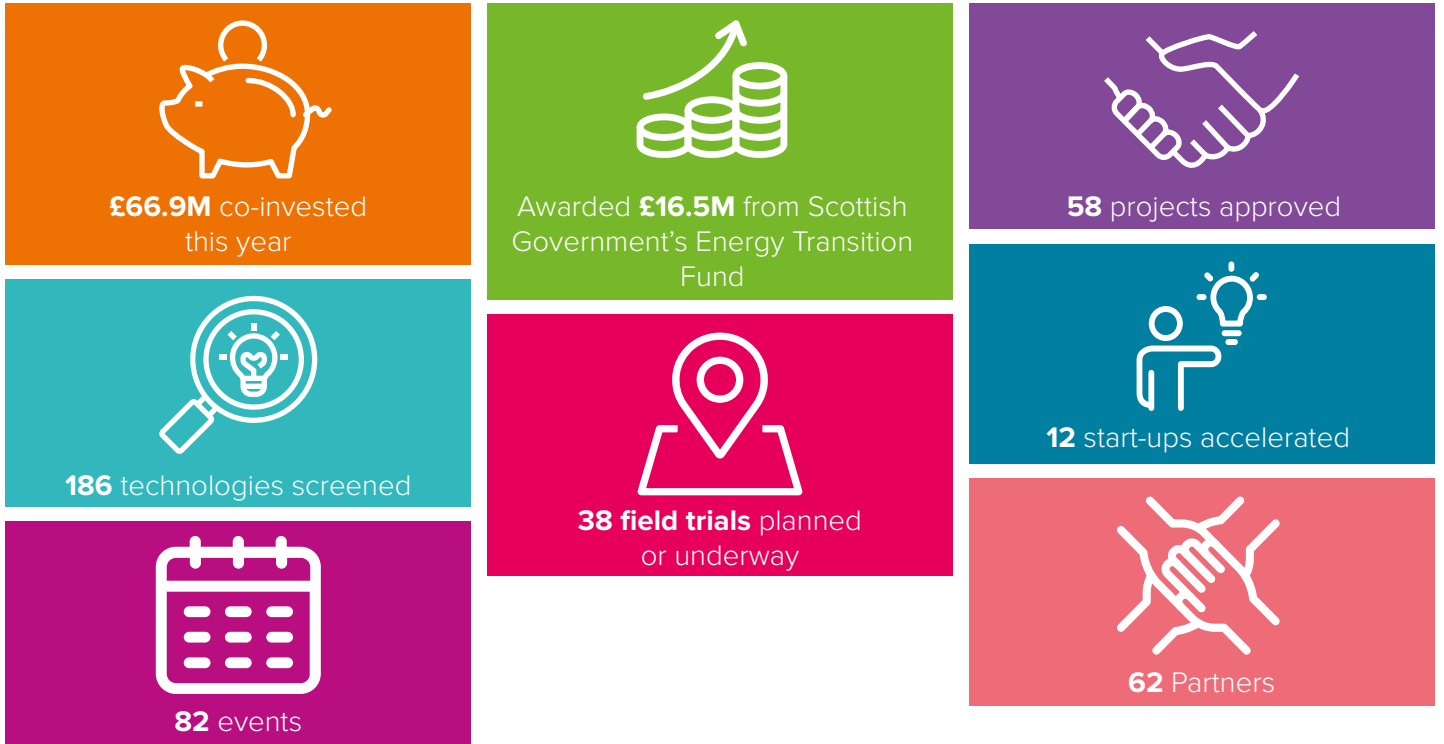


Left to right: **Michael Gove**, UK Government Minister for the Cabinet Office and Chancellor of the Duchy of Lancaster, **Colette Cohen OBE**, CEO Net Zero Technology Centre, **Kate Forbes** Cabinet Secretary for Finance and the Economy.

Resolute in their mission to inspire and innovate in an inclusive environment, NZTC grows new companies through TechX; progress partnerships with Robert Gordon University and University of Aberdeen to deliver excellence in R&D in subsea and decommissioning; and expand their cross sector and cross-academia network to ensure they work in the right technology partnerships to transform the North Sea.

This year Net Zero Technology Centre celebrated a significant milestone, their five-year birthday.

**A year of strong delivery:**



**Since inception:**



# NET ZERO TECHNOLOGY TRANSITION PROGRAMME

In August 2021, NZTC was awarded £16.5million from Scottish Government's Energy Transition Fund. The funding, which will be match funded by industry, is driving seven projects through the Net Zero Technology Transition Programme (NZTTP) which is expected to deliver **£403billion for the economy and 21,000 jobs by 2050**.

## Seven projects set to accelerate the transition

### 1. ENERGY HUB

– Combine operation, production, storage and transport, cornerstones of an integrated energy system and essential elements for the transition to net zero. The hubs will produce clean energy by connecting renewable energy sources such as wind, tidal and hydrogen, which will require CO2 emissions to be captured and managed successfully.

### 2. HYDROGEN BACKBONE LINK

– unlocking Scotland's hydrogen export potential by developing pan-European infrastructure, including repurposing existing pipelines.

### 3. ALTERNATIVE FUEL GAS TURBINES

– developing a low carbon alternative to natural gas will help decarbonise offshore and onshore operations without extensive modifications. In addition to the significant export opportunity in the oil and gas sector, gas turbines have numerous applications in onshore industrial processes and electricity production.

### 4. OFFSHORE LOW TOUCH ENERGY ROBOTICS AND AUTONOMOUS SYSTEMS (OLTER)

– building a best-in-class offshore Industrial RAS (Robots and Autonomous System) centre in Scotland, positioning the country as an international leader in deploying robotic and automation technologies.

### 5. OFFSHORE MANNING OPTIMISATION

– enable industry to employ remote operations technology and optimise future working environments across the offshore energy sector.

### 6. DATA FOR NET ZERO (D4NZ)

– a programme of research projects with data science, visualisation and computer modelling at its core. D4NZ will power forward a reimagined offshore energy system enabled by data sharing and evidence-based decision-making.

### 7. OFFSHORE ENERGY DIGITAL ARCHITECTURE

– developing a sector-wide digital and data architecture to enable our future offshore energy system, improve data visibility and demonstrate critical industry data can be made available in a manner which is as open as possible.

*“The Energy Transition Fund is helping the energy sector to grow and diversify and accelerate the journey to net-zero and underpin the north-east's ambitions to become a world leader in this transition.”*

**Michael Matheson, Cabinet Secretary for Net Zero, Energy and Transport**

## NET ZERO R&D PROGRAMME

The projects within the NZTC's Net Zero R&D Programme advance the understanding of early-stage fundamental science challenges to delivery of a net zero energy transition and invest to accelerate the development of technology to solve them.

In April 2021 NZTC launched a call for ideas to help power the UKCS with hydrogen technologies. The focus was end-to-end hydrogen innovation, optimising the production of blue hydrogen, hydrogen transportation, long-term hydrogen storage, and hydrogen/hydrogen carrier utilisation. 33 ideas were submitted and 16 selected.

## TECHNOLOGY DRIVING THE TRANSITION

The technologies NZTC has supported in developing and deploying this year are already making an impact; reducing oil and gas operational emissions, creating an integrated offshore energy system and enabling remotely controlled operations, empowered by data, robotics and autonomous systems. With many to choose from, a selection is showcased below:

### Unity

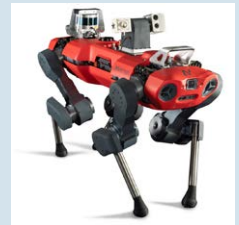
A lightweight additive manufactured (AM) gate which enhances the sealing ability of a valve for depleted wells, design features significantly reduce the final weight, increasing the ability to seal in low pressure applications and therefore extend the production life of the well.

### Oceanering

Focused Stress Concentration Tomography enables and supports the reduction of fugitive emissions by up to 60% and lowers maintenance costs by 40 – 60% through the detection of corrosion under insulation.

### Chevron ANYmal

The University of Oxford and the University of Edinburgh (via the ORCA Hub) partnered with Chevron to deploy and validate new navigation and mapping technology, at a live operational petrochemical plant in Ghent, Belgium. The software, deployed through a quadruped robot, ANYmal, completed a series of relevant navigation and visual inspection tasks proposed by Chevron. This live, operational trial was the first for Chevron across its assets, globally.



### Hydromea

Gen1 EXRAY, Hydromea's tetherless underwater ROV system has been successfully deployed within a full ballast water tank on one of TotalEnergies' North Sea FPSO vessels. During this interim trial, EXRAY successfully collected visual inspection data, validated system performance including autonomous operation, bringing a paradigm shift in how submerged assets are inspected and monitored. Final trials with Gen2 EXRAY will conclude in Q3 2022.



### QL Tech

A next generation AI system, encompassing the latest developments in machine vision and machine learning to automate fabric maintenance blasting and painting. The project has built, tested and qualified an autonomous robot in a controlled environment onshore which demonstrates the ability to blast and coat uniform surfaces on a tank and series of pipes. Further work on reliability and autonomous capabilities is being undertaken in preparation for a potential phase 2 of the project which would involve offshore field trials.

### Waterwhelm

A patent-pending forward osmosis technology powered by waste-heat that utilises natural osmotic pressure to draw water across a semi-permeable membrane. Waterwhelm's technology can be utilised to reduce the electricity consumption of desalination by up to 80%.

## Supercritical

A TechX Pioneer, Supercritical is developing the world's first high pressure, ultra-efficient electrolyser, for the production of hydrogen and oxygen from water, with zero emissions. It exploits the benefits of supercritical water and deliver gases at over 200 bar of pressure, without the expense or challenges of hydrogen compressors.



## CO2 Circular

The SMART-DAC system captures CO<sub>2</sub> from the air, creating a continuous absorption/regeneration cycle. The scalability and sustainability of the SMART-DAC system makes it an affordable solution to small, medium, and large-scale capture of CO<sub>2</sub>.



## ACCELERATING CLEAN ENERGY START-UPS

NZTC continues to harness entrepreneurial spirit and unleash the power of innovation and determination through TechX, the award-winning accelerator programme, which provides clean energy start-ups and early-stage businesses with the tools, support and resources they need to grow.

Building on previous years' success with cohort four of the TechX Clean Energy Accelerator attracting over 230 applications, spanning 50 countries.

Following a pitch to a panel of industry experts, **12 highly innovative technology start-ups were selected.** The commitment to diversity resulted in more than 40% being female led or co-led start-ups. Share of ethnic diversity also increased across the assessment cycle, with 43% of the top 30 and 42% of the final cohort.

### AQUATURE -

Technology to produce green chemicals and carbon neutral fuels from wastewater, using a net energy-positive bio-electrochemical process.

### BEEEX AUTONOMOUS SYSTEMS -

Hovering Autonomous Marine Systems, paired with a subscription-based software portal to conduct intelligent assessments and analyses of underwater assets.

### BRAYFOIL TECHNOLOGIES -

A novel wind turbine blade design that utilises bio-mimicry to improve performance and efficiency.

### CEDECO -

Technology offering a mechanical alternative to grout for offshore wind turbine jacket installation.

### DUNIA INNOVATION -

The world's first self-driving laboratory for electrocatalytic CO<sub>2</sub> utilisation, significantly speeding up catalyst discovery.

### HONUWORX -

Uncrewed systems for the deployment and control of subsea robots that drive down the cost and emissions of offshore operations.

### JET ENGINEERING SYSTEM SOLUTIONS -

Floating telecom mesh networked 5G buoys that enable safe, secure and sustainable smart operations by combining data with communications.



#### PJP EYE -

Rechargeable plant-based dual carbon batteries that utilise industrial waste instead of rare metals, with potential applications in marine and aviation.

#### REPAIR CARBON CAPTURE -

A modular, cheaper way of capturing carbon through an electrochemical system powered by electricity.

#### T-OMEGA WIND -

Low-cost floating wind turbines for coastal community energy which can resist wave-induced motion and align to the wind by weathervaning.

#### UP CATALYST -

A carbon-capturing reactor that can convert airborne CO2 into graphite.

#### ZEM FUEL SYSTEMS -

An ammonia-based fuel cell to power marine vehicles resulting in zero-carbon transportation.

This year, Abu Dhabi National Oil Company (ADNOC) joined as a Strategic Partner alongside bp and Equinor, and Accenture came in as a new TechX Professional Services Partner.

#### Pioneers continue to push boundaries

TechX pioneers from cohort one to three continue to develop their ideas, secure additional investment and achieve growth.

TechX start-ups have **raised £28m in investment** since graduating from the accelerator programme to continue to accelerate their tech/business



As of March 2022, eight TechX Pioneers are **raising equity** and 13 are planning to start raising equity in the next 12 months, **totalling £70m in equity raised or planned**

TechX Pioneers **generated** an aggregate **£5.5M** in revenues in 2021



Pioneers provided work for **206 employees** (including part-time) and contractors in 2021

## PARTNERS /GOVERNANCE

Chaired by Martin Gilbert, the Board is responsible for the overall strategic direction and long-term success of the Net Zero Technology Centre. The audit committee Chaired by Jeff Corray advises the Board on the effectiveness of the management procedures. It receives reports on risk, control, and governance of the centre, offers advice to the Board and monitors the resulting actions.

### ACADEMIC PARTNERSHIPS

**The National Subsea Centre (NSC)** is a partnership between Robert Gordon University and NZTC, is a multi-million-pound Centre of Excellence for Subsea Research Technology development. The NSC's aim is to accelerate the Energy Transition through smart technologies applied to the entire eco-system which makes up the Blue Economy; industries including oil and gas, offshore renewable energy, tourism, marine aquaculture, carbon capture, maritime transport, defence, climate change, and waste management. The NSC is expected to be officially launched in September 2022.

It is currently focused on three programmes: Transparent Ocean, Integrated Marine Energy, Net Zero Marine Operations.



**The National Decommissioning Centre (NDC)** is a £38m partnership between NZTC, the University of Aberdeen and industry. Building on the world-leading R&D capability at the University of Aberdeen, the NDC is transforming the approach to decommissioning, including infrastructure repurposing opportunities and leading crucial research to decarbonise decommissioning. Supporting the energy industry's transition to net zero.

In September 2021, the NDC completed installation of its marine simulation suite. The £1.6 million suite has been funded by the Scottish Government, the UK Government and NZTC through the Aberdeen City Region Deal. It can undertake detailed marine technology and operational simulations as well as complex data modelling and visualisation.

These advanced capabilities provide a safe, virtual environment where users can simulate offshore and subsea operations in real time, such as the removal or installation of energy infrastructure, deploying a range of equipment and vessels to see which are best suited to the task and introducing challenging factors such as variable weather and tidal conditions.



*"The simulator has been an important addition the National Decommissioning Centre and we are already working with industry to unpick complex offshore engineering challenges. We are also looking forward to supporting the Net Zero Technology Centre's Data for Net Zero project using the simulator's 'smart cities' capability to create a reimagined offshore energy system enabled by data sharing and evidence-based decision-making."*

**Prof. Richard Neilson, National Decommissioning Centre Director**

## COLLABORATING ACROSS BORDERS AND INDUSTRIES

NZTC continues to nurture and grow the network of partnerships to share resources, capabilities and expertise to tackle the net zero challenge.

This collaboration fosters innovation, empowerment, and support whilst bringing an unparalleled breadth of knowledge and skillsets to projects, enabling the Centre to leverage world-class expertise and talent to better understand and address the significant global themes emerging with regards to the energy transition.

### Horizon Europe funded ConsenCUS:

The ConsenCUS consortium, led by New Energy Coalition and University of Groningen, aims to make carbon capture and conversion possible with (green) electricity, so that it can be carried out more sustainably and potentially carbon neutral. The consortium has secured €12.6 million of European funds and private investments. NZTC will provide technical oversight and utilise its industry partnerships to conduct modelling studies of CO2 capture to further bolster the research.

### Ballylumford Power-to-X:

NZTC has formed a consortium with B9 Energy, Mutual Energy and Islandmagee Energy Ltd to deliver phase one of the Power-to-X Project as part of the UK Government's Department of Business Energy & Industry Strategy (BEIS) Longer Duration Energy Storage (LODES) Demonstration innovation competition.

Phase one of the Power-to-X Project will see the delivery of a front-end engineering design (FEED) to demonstrate the concept of innovative, first-of-a-kind, longer duration ( $\geq 4$ hrs) energy storage technologies which can be deployed at scale.

*"Driving forward energy storage technologies will be vital in our transition towards cheap, clean and secure renewable energy. It will allow us to extract the full benefit from our homegrown renewable energy sources, drive down costs and end our reliance on volatile and expensive fossil fuels."*

**Greg Hands, Energy & Climate Change Minister**

### BEIS - Direct Air Capture:

Partnering with a consortium made up of CO2CirculAir B.V, Process Design Center, Optimus, and the Research Centre for Carbon Solutions at Heriot-Watt University the project seeks to deliver a sustainable membrane absorption and regeneration technology for direct air capture (SMART-DAC), removing CO2 or other Greenhouse Gases (GHGs) from the atmosphere.

### Energy Transition Alliance:

NZTC continue to collaborate with ORE Catapult and deliver against the jointly formed Energy Transition Alliance (ETA) to drive technology projects.

Five projects have been kicked off to support the North Sea's transition to renewables that include developing solutions for the recycling and repurposing of wind turbine blades, supporting the growth of the floating wind foundation sector and improving opportunities for offshore energy supply chains.

*"Our Energy Transition Alliance partnership with NZTC is driving forward many strategically important innovations in areas such as sustainability, floating wind, robotics and supporting the growing UK supply chain, bringing cross-sector solutions to creating a more integrated energy future for the UK."*

**Andrew Jamieson, Chief, Executive of ORE Catapult**

### HII:

HII is a collaboration between six Catapult Centres, three Technology Centres and NPL creating a connected, end-to-end innovation ecosystem to convene industry, government and broader stakeholders. HII aims to accelerate innovation and develop growth in the UK hydrogen supply chain and overcome technology and integration challenges to establish an effective UK hydrogen economy.

### **North East Scotland Hydrogen Ambition (NESH2A):**

NESH2A Steering Committee was formed in May 2021, with the clear aim of coordinating efforts that support the delivery of over 1GW (20%) of the UK's low carbon hydrogen production target by 2032 and position the region to capitalise on future hydrogen export markets. The committee representatives are NZTC, Hydrasun, Storegga, ETZ Ltd, Aberdeen Renewable Energy Group (AREG), NESCol, SGN Energy Futures, Scottish Enterprise and Aberdeen City Council.

### **SNZR (Scotland Net Zero Roadmap):**

The SNZR project is part of a UK government funded challenge which boasts Innovate UK as its largest funder. The project aims to develop a roadmap that sets out how Scotland's industrial clusters can move towards Net Zero by 2045, based on exploring a set of decarbonisation scenarios.

Project partners are Aker Solutions, Costain, Doosan Babcock, Energy System Catapult, Halliburton, Optimat, NZTC, Pale Blue Dot, University of Edinburgh, University of Strathclyde, and Wood Plc.

### **'One North Sea' flagship database:**

Cross-border collaboration, alignment and joint planning in the North Sea region is fundamental for a successful energy transition. Along with TNO, NZTC launched 'One North Sea,' a publicly available platform which maps out close to 90 integration projects already underway in the Netherlands, UK and Norway that demonstrate a component of re-use of existing infrastructure. Most common themes: CO2 transportation and storage, Electrification, Hydrogen transport and Hydrogen production offshore.

### **Offshore Energy Digital and Data Taskforce:**

NZTC launched the taskforce to develop an Offshore Energy Digital & Data Strategy with a clear set of recommendations and an action plan to facilitate greater digital collaboration, innovation and market development in offshore energy through improving data availability and transparency to help unlock new opportunities across the offshore energy sector.

### **Well Plug and Abandonment industry wide collaboration programme:**

The well P&A collaboration initiative has been driven by NZTC in recognition of the urgency needed to accelerate the pace at which technology is validated and qualified. Technologies will be trialled and tested in multi-operator collaboration field trials, enabling faster, lower-cost and wider industry adoption.

## NZTC AT COP26

COP26 marked a pivotal moment in the fight against climate change, and for the first time in history, the UN Climate Change Conference was held in the UK.

COP26 marked a key occasion in NZTC's events calendar. In the run up to COP26 the Centre hosted a number of Insight60 webinars to spark conversations that explored the potential solutions to transform our industry and drive us towards a more successful sustainable economy. The series featured presentations from aviation, academia, finance and the energy industry.

NZTC welcomed both physical and virtual attendees to the three-day fringe programme, 'The Road to Glasgow: Destination Net Zero', hosted live from Glasgow and broadcast globally.

From exploring technologies that are set to disrupt and accelerate net zero, to crowning the start-up champion from the clean energy pitch battle, the COP26 programme provided the vision and direction needed to close technology gaps and help define a clear path to net zero.



3 days



105 in-person attendees



680 virtual attendees

**Pitch battle:** ten start-ups, one winner - **Mineral Carbonatation International**



**Global Summit:** 10 presentations by international research organisations

**Technology showcase:** 10 game-changing technologies, over 3 days



The Centre's three-day event opened with a keynote speech from Michael Matheson MSP, Cabinet Secretary, Net Zero Energy and Transport and also featured Malcolm Offord of Garvel, Parliamentary Under Secretary of State.

Ten presentations were delivered by international research organisations who compared regional technology priorities for accelerating industries towards net zero. This culminated in the announcement of an international research study which we will deliver alongside the research organisations who participated in our global summit. The results will be presented at COP27 in 2022.

The TechX Clean Energy Start-up Pitch Battle showcased 29 clean energy start-ups virtually which were subject to a global public vote. The final ten companies were selected based on the public vote and a judging panel consisting of sector experts and invited to pitch live at our final event during COP26. The pitch battle was supported by a range of partners who along with the NZTC nominated the initial 29 start-ups.

The winning start-up Mineral Carbonation International (MCI) pitched their scalable carbon platform technology that safely converts industrial CO2 emissions into solid bulk materials, which has the potential to help accelerate the transition to net zero. MCI received a package of tailored support from the TechX programme.

Over the three days, over 10 game-changing technologies that address real-world challenges across a range of sectors from renewables to manufacturing and accelerate our integrated energy future, were also showcased virtually.



*Pitch Battle Winner (from left to right):* **Martin Gilbert**, Chair, Net Zero Technology Centre (Chair of the Judging Panel), **Colette Cohen OBE**, CEO, Net Zero Technology Centre, **Sophia Wang**, COO, Mineral Carbonation International and **Mark Anderson**, TechX Director, NZTC

*“This initiative by the Net Zero Technology Centre to bring together research experts has been hugely worthwhile. Encouraging collaboration between countries to exchange valuable ideas is our best hope for securing a smooth, sustainable and economically beneficial transition away from fossil fuels.”*

**UK Government Minister for Scotland, Lord Malcolm Offord**

## INCLUSIVE ECONOMIC GROWTH

### Inspiring the next generation

NZTC continues to inspire the next generation of female founders in the clean energy space. TechX Ideas Club was run in April 2021 offering the thriving community the platform to ignite their creativity, develop concepts, validate ideas, hear from inspirational speakers, network and launch new clean energy businesses.

The four virtual events, aimed at inspiring female entrepreneurship and diverse teams, included speakers from Skills Development Scotland, Skillfluence, Thorpe Molloy McCulloch, BeautyBooker and Rora Dairy. All shared their insights into their entrepreneurial experiences and how to successfully build confidence and creativity to drive their ideas towards success.

NZTC has worked collaboratively with industry, regional bodies, schools, and universities to promote entrepreneurship and science, technology, engineering and maths (STEM). Young people are given an insight into the world of employment, through work experience. And everyone from school children, teachers and parents have access to the support and information needed to consider a career in the energy industry, engineering and the associated business functions.

17 Internships

5 Career Ready students

2 UK Government Kickstart schemes

## Living sustainably

NZTC is committed to the UN Sustainable Development Goals.

Their Sustainability Policy mitigates the organisation’s carbon footprint, helping them become a net zero organisation.

By working with a “mitigation first, offsetting second” ethos, to reach net zero by 2030 the Sustainability Team is helping NZTC reduce its Scope 1, 2 and 3 emissions, as well as inspiring their personnel to look at their own individual impacts, through events such as litter picking, and the use of the carbon footprint tracking and reduction app, Pawprint. For employees that rely on travel by car, electric vehicle chargers have been installed at the offices, and finalised a salary sacrifice scheme for electric vehicles.

In June 2021, the Centre launched Pawprint, an employee engagement tool which encourages employees to fight climate change in support of organisation climate targets. As of March 2022, over 74% of staff are registered on the Pawprint app.

Three ‘Pawprint Sprints’ have been undertaken. In August 2021, the organisation reduced its carbon footprint by 0.17 tCO<sub>2</sub>e, the second Sprint in November 2021 reduced the organisational footprint by 6 tCO<sub>2</sub>e during the month.

NZTC became an accredited Living Wage Employer in January 2022. This means that every member of staff at NZTC earns not just the minimum wage, but the Living Wage. The real Living Wage rates are independently calculated based on what people need to get by, ensuring employees earn a wage that meets the costs of living, not just the government minimum.



## BENEFITS

Benefit	Measures	Target	Target date	Current measure
Match funding	Co-investment match funding from the private sector (operations and supply chain)	£174.1m	2026	£135.7m
Increase in GVA	Additional GVA	£8.9Bn - £26.9Bn	2036	£10Bn - £15Bn
New Technologies Deployed	Increase the number of new technologies that have been deployed on a first user principle	10	2026	64
Commercialised solution centre technologies	Number of Net Zero Technology Centre solution centre funded technologies reaching commercialised phase (TRL9)	15	2026	29
Supply chain projects funded	Number of supply chain technology accelerated projects co-funded	100	2026	45

## 6b. BIOHUB

### TRANSFORMING LIFE SCIENCES SECTOR GROWTH

BioHub is a transformational investment to accelerate the growth of pioneering life sciences companies in Aberdeen. The £40million project, led by Opportunity North East, made significant progress. Entering its main construction phase, securing £2million of additional funding, delivering an economic boost for the construction sector and creating career pathways for young people.

The life sciences sector is a thriving part of Scotland's economy, with a turnover of £6.6billion, employing 40,000 people and is on track to achieve an £8 billion turnover by 2025.

North East Scotland is home to leading life sciences research in biologics and a distinct cluster of clinical-stage biotech companies. The region's goal is to harness these strengths and related asset bases to develop one of the country's most exciting commercial life sciences clusters. To create an international centre for excellence in biologics to build a healthier nation and address modern health epidemics.

BioHub construction is on schedule to complete in late 2022. The new build will provide laboratory, incubation and collaboration space and custom accommodation over five floors, specialist business support programmes, and access to expert networks and investors. It will house up to 400 scientific entrepreneurs at full occupancy. BioHub tenants will be spinout, start-up and scaling businesses bringing new drugs, treatments, therapies and technology to market and creating high-skill jobs to drive economic diversification and sector growth.

BioHub is a flagship addition to Aberdeen's Foresterhill Health Campus, one of Europe's largest integrated clinical, research and teaching sites for life sciences and medicine, and will catalyse further collaborative innovation.

The economic, health and wellbeing benefits delivered by BioHub will be felt regionally and nationally and underline the region's ability to provide significant economic returns on investment.

### CONSTRUCTION PROGRESS

BioHub achieved its main construction phase milestones during the year and reached the halfway point in its build programme in February 2022. Construction will run through to late 2022, followed by fit-out and the first phase opening to tenants by the end of the year.

The project team and partners successfully maintained delivery and momentum against a broader construction industry backdrop of Covid-19 restrictions, cost inflation and materials shortages.

BioHub hosted high-profile visits to mark construction progress. These included Cabinet Secretary for Finance, Kate Forbes MSP, Secretary of State for Levelling Up, Housing and Communities, Rt Hon Michael Gove MP, and Lord Offord of Garvel, Parliamentary Under-Secretary of State for Scotland.



BioHub hosted high-profile visits during the year to mark construction progress. **Lord Offord of Garvel**, Parliamentary Under-Secretary of State for Scotland, visited in February 2022 and is pictured with ONE CEO **Jennifer Crow** and **Dr Deborah O'Neil**, Chair of ONE Life Sciences and BioAberdeen and Chief Executive of NovaBiotics.



## COMMUNITY AND ECONOMIC BENEFITS

The BioHub main construction phase provides more than 100 jobs in the city and creates inspiring career pathways for young people.

Community benefits delivered by main contractor Robertson Construction include construction apprenticeships with North East Scotland College, careers and skills sessions with pupils across primary and secondary schools, work placements, and volunteering with local charities.

These benefits, valued at more than £8.2 million in total, are significant to the community and economy just now.

Robertson Construction is working with St Machar Academy and North East Scotland College (Nescol) to deliver a pilot Foundation Apprentice Course, currently supporting Level 5 and Level 4 students over two years. The three level 5 students, attending Nescol are gaining on-site work experience while the school students are being supported through classroom based learning and practical experience.



The BioHub build phase is supporting construction jobs in Aberdeen and encouraging new entrants to the industry, including construction apprentices from North East Scotland College (pictured from left) **Mohamad Alhamdani, Jayden Dale** and **Owen Garner**.

Gordon Milne, regional managing director, Robertson Construction Eastern, said: “At Robertson, it is important for us that we leave a positive legacy everywhere we work. We aspire to deliver much more than a high-quality facility and aim to provide real opportunities for individuals to learn and benefit from our projects. As we progress with the final stages of the construction programme at BioHub, we will continue our engagement with the local community and build on what has already been delivered to date.”

## ADDITIONAL INVESTMENT

Opportunity North East (ONE) is the lead partner and a funder of BioHub, which has £20 million of capital funding jointly provided by the Scottish Government and UK Government via the Aberdeen City Region Deal. ONE has committed up to £5.6million to BioHub, and NHS Grampian and the University of Aberdeen are strategic partners in the project.

In March 2022, Scottish Enterprise confirmed £2 million of new funding to support the final fit-out of the building.

Dr Deborah O’Neil, Chair of ONE Life Sciences and BioAberdeen and Chief Executive of NovaBiotics, said: “*Aberdeen has world-class research and innovation strengths in life sciences – across our companies, universities and NHS – and a track record of producing exciting new businesses. The ongoing investment in BioHub will help accelerate commercialisation and business growth to bring new therapies, treatments, and technology to market.*”



Aberdeen’s transformational BioHub secured £2 million Scottish Enterprise investment in May 2022. Cabinet Secretary for Finance and the Economy, **Kate Forbes MSP** toured the construction site and met life sciences leaders from Aberdeen companies NovaBiotics, Elasmogen and TauRx, who have championed the development of BioHub as a focal point for life sciences business creation and growth, at a roundtable hosted by ONE. Ms Forbes is pictured with ONE CEO **Jennifer Crow**; Chair of ONE Life Sciences and BioAberdeen and Chief Executive of NovaBiotics, **Dr Deborah O’Neil**; and **Neil Francis**, Scottish Enterprise Managing Director of International.

Cabinet Secretary for Finance and the Economy, Kate Forbes, said: *“This additional £2 million investment in BioHub aligns closely with the Scottish Government’s National Strategy for Economic Transformation, highlighting the importance of strong regional economic partnerships, skills and retraining and focused support for new markets.”*

Neil Francis, Scottish Enterprise Managing Director of International, said: *“As Aberdeen transitions to the growth sectors of the future, we are hugely excited to become a key partner in the BioHub. Life sciences as an industry is crucial to the future success of Scotland’s economy, and Scottish Enterprise recognises the importance of helping put Scotland at the forefront of the sector.”*

## **SUPPORTING SECTOR GROWTH**

Alongside BioHub’s delivery, Opportunity North East continues to develop, fund and deliver specialist support programmes for the sector and enhance the entrepreneurial environment for life sciences, working with partners the University of Aberdeen, Robert Gordon University and NHS Grampian.

Five people from the company cluster were supported through a leadership development programme and with dedicated training on recruiting and building teams for growth in life sciences businesses.

Participation in employability masterclasses and careers awareness sessions highlighted opportunities within the sector to undergraduates at the University of Aberdeen and Robert Gordon University.

Resources secured from the Scottish Government’s North East Economic Recovery and Skills Fund enabled Opportunity North East to pilot new support to life sciences businesses, including innovation awards, support to commercialise research and technical skills programmes.

Opportunity North East also raised the profile of life sciences and BioHub in the region and nationally as a partner in the Scotsman Life Sciences Conference in December 2021 and by staging the second Life Sciences Summit in Aberdeen in March 2022.

More than 130 innovators and entrepreneurs, academics and researchers, clinicians and healthcare professionals, venture capitalists and investors attended the summit, held in the University of Aberdeen’s King’s College Conference Centre. The event was co-created and delivered through a partnership of The Times and Sunday Times Scotland, Opportunity North East and BioHub, and supported by the University of Aberdeen.

The summit explored the latest biotech and HealthTech developments, funding, and investment for company growth, and what is coming next for this high-value sector, including the opening of BioHub.

At the summit, Opportunity North East CEO Jennifer Crow said: *“BioHub is now a real place moving into its late construction phase. Ready to become the focal point for life sciences company creation and growth, Providing the space and specialist support to new and scaling businesses, and connections to empowering networks and investors. It is a physical manifestation of the Aberdeen city region’s confidence in life sciences and its role in our future, low-carbon economy.”*

## **INDUSTRY ENGAGEMENT**

Opportunity North East led extensive industry, partner and stakeholder engagement during the year. This work informed the detailed development of BioHub’s facilities and support programmes and shared the vision to create a home for successful life sciences companies in north east Scotland, where they will deliver regional and national economic growth and ultimately improve the world’s health.

In BioHub, the region is putting its life sciences company cluster, research strengths and asset base at the forefront of economic diversification and the transition to a low-carbon economy, in line with national economic transformation, just transition and levelling up policy agendas.

Dr Caroline Barelle, founder and CEO of Elasmogen, said: *“For us, there could not be a better time for investment into the life sciences sector in the north east. BioHub will provide a focal point, a heart, to concentrate our excellence in life sciences, build critical mass within a vibrant, innovative environment, foster sharing of expertise and ideas, support existing companies and create new enterprises.”*

Dr Glenn Corr, Chief Operating Officer and Chief Business Officer for TauRx, said: *“BioHub will support future mutually beneficial relationships throughout the life sciences sector in years to come. We look forward to contributing to what will hopefully be an ever-increasing value chain of industry and economic benefit to the area.”*

Professor George Boyne, Principal and Vice-Chancellor of the University of Aberdeen, said: *“We are delighted to see this investment in the Aberdeen BioHub which will play such an important role in further enhancing the region’s standing as a leading life sciences centre and contributing to the wider post-pandemic recovery.”*

NHS Grampian Deputy Chief Executive, Adam Coldwells, said: *“Healthcare organisations face unprecedented challenges that require transformative innovations in diagnostics, therapies, and digital technology. As a strategic partner, we look forward to collaborating closely in all aspects of BioHub activity and supporting efforts to improve healthcare delivery and outcomes here in the UK and internationally.”*

## PARTNERS

The BioAberdeen Limited Board maintains a membership that reflects the private sector led partnership that has driven BioHub’s development from concept to project in delivery and the breadth of the region’s life sciences sector. The board membership includes Opportunity North East and life sciences companies, the University of Aberdeen and Robert Gordon University.

## BENEFITS

Benefits outlined in the BioHub business case.

Benefit	Measures	Target	Target Date
Life sciences support programmes	Life sciences support programme launched	Deliver	Delivered 2018
GVA	Generate GVA	£76m-£138m	2047
Start-ups and spinouts	Number achieved	24	2027
Networking events focussing on company growth	Number of networking events per annum	4	2027
International collaborations	Number of international collaborations in place over 5 years	2	2027



## 5c. SEEDPOD

Opportunity North East leads the transformational SeedPod project to catalyse sustainable growth in the food and drink manufacturing sector. SeedPod achieved key delivery milestones during the year, including planning approval and the launch of industry support programmes.

SeedPod's facilities, infrastructure and specialist business support programmes will enable the region's food and drink manufacturing businesses to lead in low-carbon production, digital and advanced manufacturing, and premium market development, accelerate the growth of early-stage enterprises and create new green jobs.

The £21 million hub on Scotland's Rural College's (SRUC) campus at Craibstone will be a focal point for the industry in the region and nationally.

The project partners support the industry's growth ambitions and recognise north east Scotland's leadership role in the sector's transition to net zero. SeedPod includes £10 million of capital funding provided jointly by the UK Government and Scottish Government via the Aberdeen City Region Deal. Opportunity North East has committed £4.4 million to deliver the project objectives. SRUC is a strategic delivery partner and is providing the site for SeedPod.

The project achieved critical milestones during the year.

Aberdeen City Council's planning development management committee approved the SeedPod planning application in May 2021.

Food Hub (NES) Limited, the not-for-profit company formed to deliver the capital project and supported by Opportunity North East, advanced the partnership agreement with SRUC that committed both parties to deliver SeedPod's objectives and negotiated the site lease with SRUC.

SRUC commenced on-site work to install a new access road to the SeedPod site in January 2022.



The £21 million SeedPod project, led by Opportunity North East, will drive growth and innovation in the food and drink manufacturing sector in the region and nationally.



SeedPod's facilities, infrastructure and specialist business support programmes will enable the region's food and drink manufacturing businesses to lead in low-carbon production and product and process innovation.

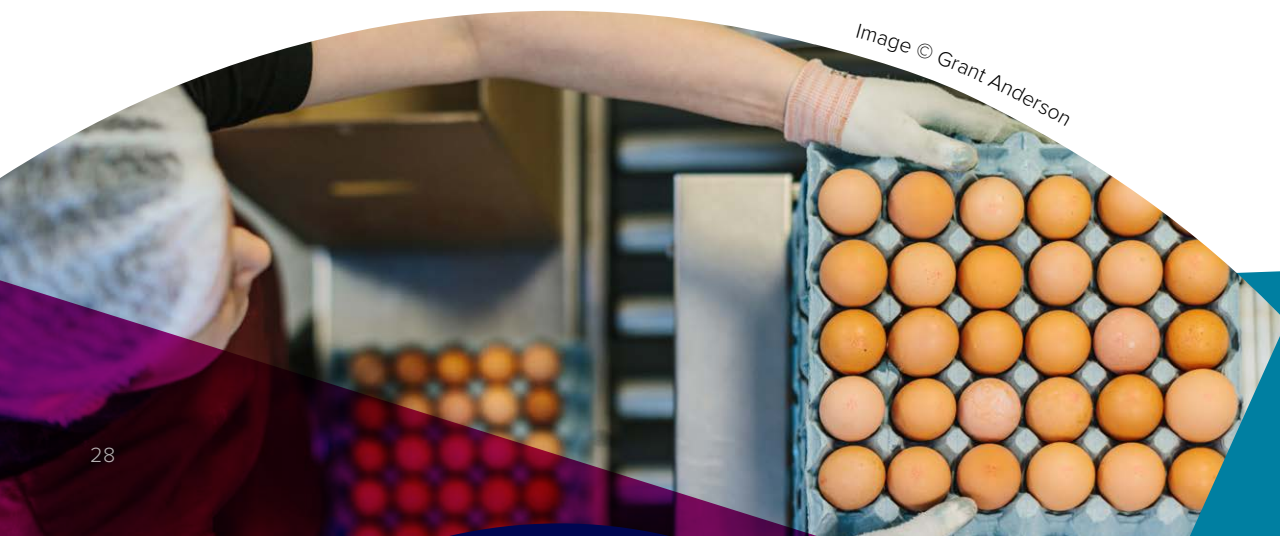


Image © Grant Anderson

The project team, designers, and preferred contractor carried out extensive design development work during the year and market testing to prepare for the main construction contract and build phase.

The construction market continued to be challenging, with materials shortages and significant cost inflation impacting capital projects.

The focus for Opportunity North East and Food Hub (NES) Limited remains the delivery of SeedPod to meet increasing industry needs and opportunities and securing the funding to achieve this. The project partners look forward to finalising the detailed design, procurement, and tendering to enable the construction contract award in 2022 and the start of the build phase.

Alongside the development of SeedPod, Opportunity North East continued to develop, fund and deliver a comprehensive range of business support programmes for the industry, working with regional and national partners. Activity during the year included new pilot programmes focusing on Industry 4.0, foods of the future, growth accelerators and sustainability. Funding secured from the Scottish Government's North East Economic Recovery and Skills Fund enabled project delivery to be accelerated and expanded and new activity to be piloted. Activity delivered included:

- Five manufacturers are taking part in a process change accelerator, looking at their operations from sales and planning to production and logistics. The project gives the businesses strategies to deliver growth within their existing capacity and informs future expansion plans.
- More than 40 businesses are engaged in a digital sales and marketing programme to increase sales via digital marketplaces and e-commerce platforms.
- An Insights into New Product Development (NPD) Accelerator pilot is engaging businesses in insights translation, innovation workshops, value proposition development, commercialisation strategy and providing links to NPD facilities and expertise.
- A start-up boot camp and accelerator supported new starts in the region to begin their commercial journeys, stimulating the entrepreneurial growth pipeline.
- A sustainability advisor, jointly funded with Scotland Food & Drink, works with businesses to support their transition to low-carbon production and manufacturing. Significant original carbon footprint research identifies areas for action in the region and enables new project development.

SeedPod will ultimately deliver these programmes and projects to catalyse the food and drink sector's evolution and growth, which is critical to north east Scotland's successful diversification and managed transition to a low-carbon economy.



ONE-led industry business support delivered during the year included new pilot programmes focusing on Industry 4.0, foods of the future, growth accelerators and sustainability. Funding secured by ONE from the Scottish Government's North East Economic Recovery and Skills Fund enabled project delivery to be accelerated and expanded.

## PARTNERS

The Board maintains a membership base that reflects the private sector led partnership that has driven SeedPod's development from concept to project in delivery and the breadth of the region's food and drink sector. The board membership includes Opportunity North East and food and drink companies, SRUC, University of Aberdeen and Robert Gordon University.



North east Scotland is a leading location for food and drink production from land and sea. The sector turnover is more than £2.2 billion and it supports more than 22,000 jobs. SeedPod will enable businesses to grow and create new, high-value jobs as part of the region's low-carbon economy.

## BENEFITS

Benefits outlined in the SeedPod business case.

Measures	Target	Target Date
First cohort of 10 start-ups participating in the accelerator programme	Minimum of 10 companies	Q4 2021
10 start-ups achieved per year by year 5 (2027)	2 per year	Progress will be monitored quarterly from 2022
1 growth programme per year, with 10 company participants in each	Minimum of one programme ongoing per year	Food Hub team will report on progress towards target annually years 2022-2025 along with income generation figures
4 companies per year investing in advanced processing technology/smart manufacturing – achieving 25% gain in productivity	4 companies	Progress to be monitored quarterly from 2022-2025
10 companies investing in R&D, 5 of these in collaboration with academia	2 per year	Measure annually in year 2025
Increase in company turnover by min 5% per annum by 2025 by companies supported by the Food Hub		Annually from 2025
20 companies to have achieved significant sales (10% of turnover) in new markets (at least 2 of these to be international) by 2028		Annually 2028



## 5d. ABERDEEN SOUTH HARBOUR

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The Port of Aberdeen's expansion project at Aberdeen South Harbour will add 1,400m in quayside length and accommodate vessels of up to 300metres. The new facilities will create new opportunities for energy transition activities, including renewables and decommissioning, attract new cargo to the port and generate increased tourism through cruise traffic around the North Sea.

The Port is gearing up for operations at Aberdeen South Harbour, with the first commercial vessels expected this summer as a 'soft start' prior to operations fully commencing in October. On completion it will be a unique facility due to its distinctive blend of scale, location and connectivity. Along with the North Harbour, it will represent an exceptional opportunity for commercial growth and diversification. The Aberdeen South Harbour expansion project is important not only to the local economy but also regionally and nationally to allow for economic recovery and prosperity.

### PARTNERS

The Aberdeen Harbour Board operates as a Trust Port, created by an Act of Parliament. It is run by an independent Board for the benefit of its stakeholders and governed by its own legislation. The Board members have expert knowledge in, Law, Construction, Finance, Oil and Gas, Port Operations, Commercial, Marine and Property.

*"The large-scale development of renewable energy represents the biggest opportunity for sustainable economic growth in Scotland for a generation. Our £400 million expansion project will be at the heart of the development of high potential sectors, including offshore wind and green hydrogen. We have a clear vision for attracting the next generation of renewables projects to the North East of Scotland, providing a catalyst for world-class technological innovation."*

**Bob Sanguinetti, Chief Executive, Port of Aberdeen**



*The £400 million development at Aberdeen South Harbour has been designed to accommodate larger, wider, and deeper vessels*






Adjacent to the **largest oil and gas supply chain** in Western Europe



**300 metre vessels** can berth alongside



Serving a city with an **international airport, rail and trunk road connectivity**



A harbour with water depth of up to **15 metres**



Gateway to one of the UK's greatest **untapped tourist destinations**



A harbour with the **largest amount of berthage** in Scotland

Construction of Aberdeen South Harbour is now well underway, with the project in the final stages of construction.

All marine construction work was completed in 2021.

Service trenches are being installed to house the infrastructure needed for green fuels and utilities, avoiding costly retrofitting in the future.

The Crown Wall is 11 metres high and 620 metres long and will protect vessel and quayside operations from the toughest North Sea conditions.

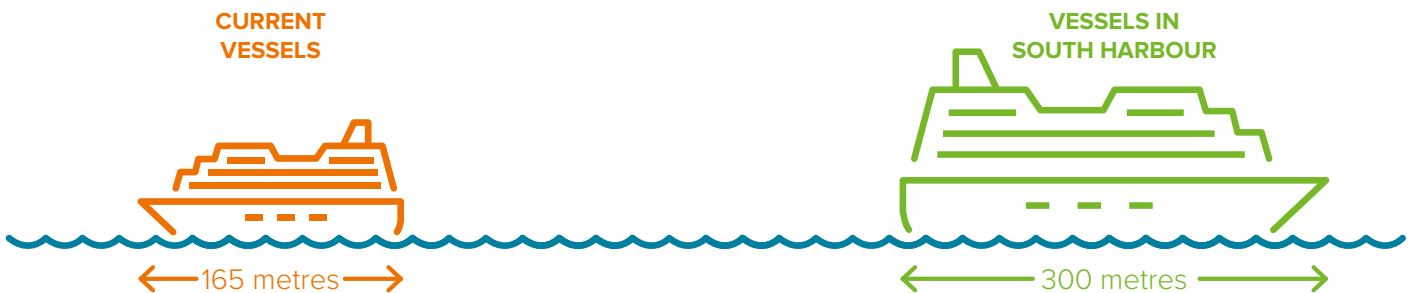
The completed South Breakwater is 660 metres long.

The Port is gearing up for operations at Aberdeen South Harbour, with the first commercial vessels expected this summer as a 'soft start' prior to operations commencing in October.

### Harbour – total quay length



### Vessel size



## BENEFITS

Benefits outlined in the Aberdeen Harbour business case.

Benefit	Measures	Target	Target Date
Increase in GVA	City Region	£0.8b per year	2040
	Scotland	£0.9b per year	2040
Increase in Jobs	City Region	5,550	2040
Cruise Ships	Cruise Vessel Visits	60 visits	2025
		75 visits	2030
		85 visits	2035

## SOUTH HARBOUR: RENEWABLES

The large-scale development of renewable energy represents the biggest opportunity for sustainable economic growth in Scotland for a generation. The Aberdeen South Harbour expansion project will be at the heart of the development of high potential sectors, including offshore wind and green hydrogen.

The Port of Aberdeen estate is set to become a ‘super-host’ for a range of sustainable initiatives and innovative thinking – all aimed at securing a net zero future. Aberdeen is the only port in Scotland to combine the European EcoPort status with ISO 14001 accreditation. The Port has a multi-layered strategy which looks at ‘green’ projects for the harbour and interfacing activities with international maritime sector and sustainable infrastructure initiatives. The Port of Aberdeen is also playing a leading role to support other sectors to reduce their carbon footprint through a range of initiatives such as green shore power, alternative vessel fuels and decarbonisation of offshore oil and gas activities.

The Energy Transition Zone (ETZ), which is proposed to be adjacent to Aberdeen South Harbour subject to proper planning approvals, is an important partnership for the port. The Port of Aberdeen is key partner in helping the ETZ to provide the facilities that industry, employers, and employees need to support the transition from oil and gas. The ETZ will play an important role in the North East’s energy transition and will become net zero exemplar and home to innovation, making it a centre of excellence for floating offshore wind and other renewables, including hydrogen. It is expected to directly support 2,500 green jobs by 2030 and a further 10,000 transition related jobs in pre-installation, marshalling and engineering. Offshore wind production continues to be key area for the region to capitalise on its subsea engineering and offshore expertise and complements the work of Net Zero Technology Centre and the ambition to produce green hydrogen at scale for export markets.

Offshore wind continues to be key to meeting renewable energy targets and 70% of the ScotWind licences are located within 100 miles of Aberdeen. The Port of Aberdeen offers extensive infrastructure, prime geographic location and direct access to an unrivalled supply chain to support the full lifecycle of fixed and floating wind projects.





## Decommissioning

The substantial increase in scale at Aberdeen South Harbour will secure the harbour's ability to support significant heavy lift projects. The expanded port will allow vessels of up to 300m to berth alongside, with a 6,000-tonne transfer load. The concrete caissons – weighing approximately 6,000 tonnes each – will enable a large proportion of decommissioning material to be brought to the quayside.

The 125,000m<sup>2</sup> of laydown area can be split into 14 separate zones, each with varying heavy lift capacity, ranging from five tonne/m<sup>2</sup> up to 15 tonnes/m<sup>2</sup>.

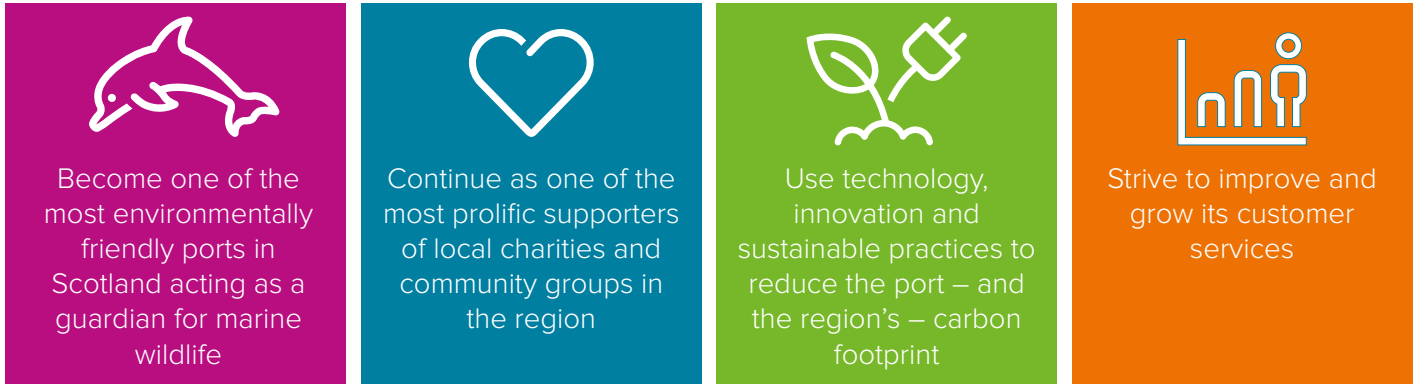
## Cruise Activity

The existing Aberdeen North Harbour is able to accommodate vessels of up to 165 metres in length. In cruise industry terms, this covers the smaller vessel end of the cruise market. These vessels accommodate between 100 and 200 passengers, and these vessels support 'specialist' cruises which focus on a particular activity such as birdwatching or wildlife appreciation. The new South Harbour, however, will be able to accommodate vessels of up to 300 metres and more. Although representing an almost doubling in vessel length, the difference in passenger numbers per vessel is much greater than 50%.

These larger cruise vessels that South Harbour will be able to accommodate and carry up to 3,500 passengers. It is a startling fact that South Harbour has the ability to welcome a cruise vessel large enough to accommodate more passengers in a single visit than the total number of passengers to visit the North Harbour in a whole season. This is the quantum leap that South Harbour represents in terms of an opportunity for the City and Region.

## INCLUSIVE ECONOMIC GROWTH

Moving forward the Port aims to:



## EXAMPLE OF ENVIRONMENTAL PROTECTION

Two underwater curtains made entirely of bubbles have been used during the construction of South Harbour to limit disruption to marine animals, particularly during the drilling and blasting operations. The 'double-bubble' curtain is believed to be the first in the UK and reduces the underwater sound levels from construction. Each bubble reflects the sound back into the bay and away from surrounding areas. The Construction Environment Management Document (CEMD) details Port of Aberdeen's delivery of environmental monitoring and mitigation and is available on their website.

## COMMUNITY BENEFITS

The Port of Aberdeen is committed to ensuring that the investment of the new harbour brings with it lasting benefits for local communities. The Port recently awarded CFINE and Big Noise Torry (Sistema Scotland) £10,000 each and Inchgarth Community Centre and Dennis Law Legacy Trust Streetsport £5,000 each.

CFINE provides a wide range of health and wellbeing services including the provision of food parcels, cooking classes, vocational training opportunities and mental health support. The port's £10,000 grant will contribute towards the running costs of the CFINE foodbank and cooking classes.

Since its launch in 2015, Big Noise Torry has worked with children at Walker Road and Tullos primary schools and more recently with secondary school pupils at Lochside Academy, using an orchestral setting to teach life skills and experiences. The port's funding will help expand the programme to a full symphony orchestra model through the introduction of wind and brass instruments to pupils.

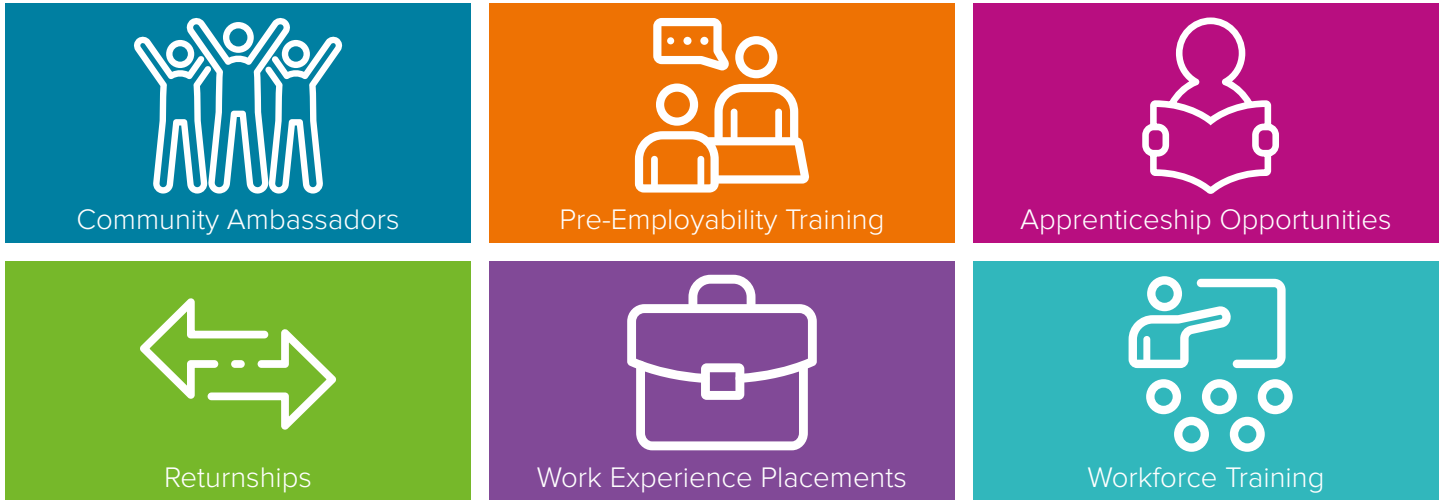
Located in Garthdee, the Inchgarth Community Centre provides education, fitness, recreation and support services for more than 2,500 people each week. The funds will be spent on new play equipment and accessible seating for children and adults with additional support needs.

Streetsport is children's charity Denis Law Legacy Trust's flagship programme, ran in partnership with Robert Gordon University, and delivers free sports and activity sessions for young people across Aberdeen City, particularly in areas of high youth annoyance. The funds will be spent on new sports equipment for participants.

### Targeted recruitment and training

A Community Benefit Steering Group (CBSG) has also been established, consisting of the Port of Aberdeen, Aberdeen City Council, North East Scotland College, CiTB, ACVO and Skills Development Scotland, to ensure a local approach to the development of training and employment opportunities on the AHEP project.

Projects include:



Further information can be found at: [Port of Aberdeen - Scotland's premier energy port](#)



## 5e. TRANSPORT

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Two transport projects are being progressed within the City Region Deal, the Strategic Transport Appraisal, and External Links to Aberdeen South Harbour.

### PARTNERS

The Transport Working Group is made up of the following organisations: Transport and Planning Officers from Aberdeen City and Aberdeenshire Councils; regional transport partnership Nestrans; and Transport Scotland. Transport Scotland have remained a key partner within the CRD Transport Working Group since its first meetings in summer 2016, and the partnership approach has shaped how appraisal and project work has been undertaken.

### STRATEGIC TRANSPORT APPRAISAL

The Strategic Transport Appraisal is taking a 20-year strategic view of the transport implications of the investment unlocked by the Deal across all modes of transport including road and rail. The appraisal is supporting decision-making regarding the development and prioritisation of future transport investment in the region, informing regional investment plans for transport infrastructure, local and regional spatial planning decisions, and national strategies and programmes of work. Two streams of work have been progressed to date: the ongoing development and appraisal of options leading to the development of the Regional Transport Strategy; and the update of the region's transport and land use model. With finalisation of the Regional Transport Strategy, and publication of the national Strategic Transport Projects Review, work turns to specific business cases and pilot projects.

#### FINALISATION OF THE NEW REGIONAL TRANSPORT STRATEGY (RTS)

The outcomes from the initial appraisal on the Strategic Transport Appraisal formed the evidence base for the Regional Transport Strategy, Nestrans 2040. Following consultation during summer 2020, the final strategy was approved in February 2021, and was formally approved by the Transport Minister in November 2021. This reflects the integrated approach being taken for the Strategic Transport Appraisal, ensuring that the work undertaken informs and complements the wider development of regional policy, as well as identifying the key projects required to achieve the objectives of the City Region Deal.

#### SUPPORTING TRANSPORT SCOTLAND'S STRATEGIC TRANSPORT PROJECTS REVIEW

The success of the CRD Transport Working Group in co-ordinating regional transport planning has been recognised by Transport Scotland, who used the North East model to inform regional partnership approaches for their Strategic Transport Projects Review (STPR). Work in the North East on the Strategic Transport Appraisal put it ahead of some other parts of Scotland, and we have maintained close liaison with the STPR team, to ensure that outcomes from the work on the STA have influenced the final recommendations contained in the STPR.

#### INFORMING LOCAL AND NATIONAL DEVELOPMENT PLANS

A key objective of the Strategic Transport Appraisal was "tying together transport infrastructure and development planning/management, on a city/region basis." One way that this has been progressed is the use of emerging outcomes from the Strategic Transport Appraisal and use of the strategic transport model to test the impact of future housing and employment allocations on the regional transport network. This work has provided a robust evidence base for the Local Development Plans being progressed by both the Aberdeen City and Aberdeenshire Councils, which are now going through formal examination phases. It has also framed key projects within the National Planning Framework 4 document, including proposals for Aberdeen Rapid Transit system.

## UPDATE OF ASAM TRANSPORT AND LAND USE MODEL

Following an extensive programme of traffic, and public transport surveys, and integration with land-use, employment and population forecast, the 2019 base model has been substantially completed, and already used to inform work on some key transport corridors. Future year forecasts, based on two scenarios is now commencing, taking into account changes such as work patterns, and future uptake of vehicle technologies. The model will be used to test the effectiveness and impacts of proposed packages of interventions identified within the Strategic Transport Appraisal and included in the RTS.

## PLANNING THE NEXT STAGES OF THE STRATEGIC TRANSPORT APPRAISAL

The finalisation of the RTS and STA appraisal document, the forthcoming completion of the ASAM refresh, and publication of national documents STPP2 and NPF4 marks the conclusion of the first phase of work of this work package. The second phase of work involves both the detailed appraisal and business cases for specific schemes, alongside development of smaller scale innovation interventions (Live Labs) which directly contribute to both the wider goals of the CRD, the RTS and the revised focus of the National Transport Strategy. This will be focus of work in the forthcoming year.

## BENEFITS

Benefit	Measures	Target	Target Date
Revised Regional Transport Strategy (RTS), and transport input to Development Plans	Completion of RTS, Strategic and Local Development plans	Finalisation of key regional documents	2020-21
STPR2 and NPF4 documents reflecting North East priorities	Completion of key documents, with content reflecting key North East priorities for transport.	Finalisation of key national documents	2020-21
Strategic input to City Centre Plans	Ensuring City Centre Masterplan and Beach Development framework reflect strategic priorities in the RTS, including walking, cycling and public transport.	Input to key plans	2022-23
Strategic input to improvements on key transport corridors	Business case development on specific corridors, A90(N), A952 and local rail, and supporting facilities.	Business Case Development and pilots	2026
Strategic input to development of effective gateways into the City	Business case development and pilot projects considering mobility hubs, digital tools.	Business Case Development and pilots	2026
Improved ASAM model made available for development planning	Availability of ASAM14 and ASAM19 upgrades	Availability of Audited models	2022

## EXTERNAL LINKS TO ABERDEEN SOUTH HARBOUR

This project is focused on delivering the most appropriate road, public transport and active travel measures to improve wider linkages to the Aberdeen South Harbour Development at Bay of Nigg and support the Energy Transition Zone. Building on the improvements agreed as part of the original planning process for the harbour, work to date has followed Scottish Transport Appraisal Guidance (STAG) to identify the most appropriate options, and work is now moving into the design phase.

### STRATEGIC BUSINESS CASE

Following the selection of the preferred road option and active travel option (Option A4 & C4) the Strategic Business Case for the External Links to Aberdeen South Harbour was updated and approved by both the Aberdeen City Region Deal Joint Committee and Aberdeen City Council's City Growth and Resources Committee during August 2021. The updated Strategic Business Case was submitted to both the UK and Scottish Governments for approval and following feedback from the Scottish Government the updated Strategic Business Case was resubmitted in February 2022, and subsequently approved on 31 March 2022.



### ROUTE OPTION ASSESSMENT – DESIGN MANUAL FOR ROADS AND BRIDGES (DMRB) STAGE 2

The next stage for the project is to undertake a Route Option Assessment of the preferred road option in accordance with the Design Manual for Roads and Bridges, and to develop an Outline Business Case. The procurement process for the appointment of technical advisors to progress this stage of the project has commenced and is due to be completed later during spring 2022.



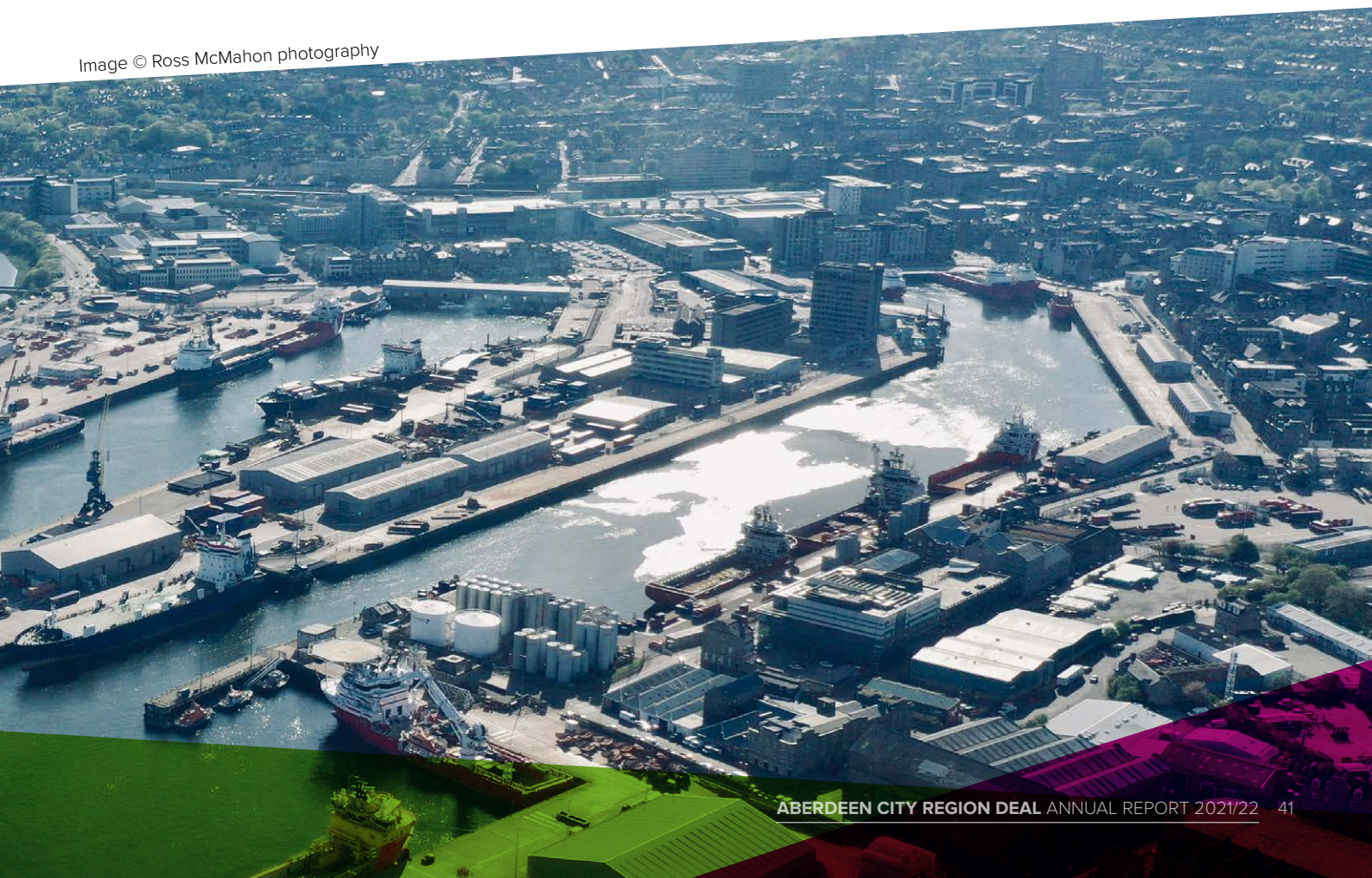


## BENEFITS

Benefits outlined in the External Transportation Links to Aberdeen South Harbour business case.

Benefit	Measures	Target	Target Date
Provide an efficient designated Heavy Goods Vehicle (HGV) route.	Monitoring HGV journey times	To be finalised during next stage	2026
Improve connectivity by all modes between ASH / ETZ	Consider the availability of connections by active travel, public transport, car, to Aberdeen.	To be finalised during next stage	2026
Improve connectivity between the ETZ and other energy-related businesses.	Business to Business measured through car-based Hansen indicators.	To be finalised during next stage	2026
Futureproof abnormal load access to ASH/ ETZ	Design capabilities of bridge to accommodate wide / long loads	To be finalised during next stage	2026
Procurement Design & Construction Improve access to employment/training, but also access to greenspace	Support for training/ apprenticeships and local supply chain, also opportunity for habitats/interpretation improvement along coast path.	To be determined at Full Business Case	2030

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## 5f. DIGITAL CONNECTIVITY

The Aberdeen City Region Deal is supporting an increased delivery of ultrafast fibre connectivity. The city network extension project connected remaining Aberdeen City Council's corporate and public sites to fibre, as well as extending the duct network for traffic management purposes. The Full fibre project is connecting Aberdeen City, Aberdeenshire and NHS sites to gigabit capacity connectivity. During the pandemic these projects have continued to work helping to keep the economy alive and help to attract commercial investment to the City Region for improved digital connectivity.

Improving the region's digital infrastructure is key to the long-term future of the local economy. It will drive innovation through the better use of physical and digital assets to enhance public and private service delivery, to tackle inequality and to improve social outcomes.

The City Region Deal provides the opportunity to create a sustainable infrastructure from which the region can transform into a world class digital area. At the core is the need to deliver ultrafast connectivity and use this to grow existing businesses; attract further investment; create new businesses; deliver excellent public services; support mobility and protect the environment; and enhance the area's attractiveness as a place to live and work.

### CONNECTION VOUCHER SCHEME

In addition to the CRD-funded projects, the Scottish Government's Reaching 100% programme, and UK Government's Project Gigabit, provide support for premises with internet speeds below 30Mbps. The Digital Engagement Team (funded by the CRD) set up in November 2021, works to stimulate demand in these programmes, supporting residents to find the best possible solutions for each property, whilst working closely with a wide network of telecoms operators, to encourage impactful bespoke solutions for residents and communities. Up to £8,500 of funding is available for SME business premises, and up to £6,500 for residential premises.

To date, the Aberdeen City Region has the highest uptake of these support programmes in Scotland. As of May 2022, across the Aberdeen City and Aberdeenshire local authority area 684 Scottish Broadband Voucher Scheme vouchers have now been utilised.

The Digital Engagement Team is also actively engaging with rural communities, and clusters of disadvantaged properties, to continue the gap analysis in digital connectivity, and to identify opportunities to aggregate subsidy value with which to encourage investment from local and national telecoms operators. With this approach, there has been successful community solutions identified and delivered, in numerous hard-to-reach areas of the region.

### PARTNERS

The Digital Programme is supported by a Digital Working Group made up of expertise and representation from Digital and Technology, Roads and Data and Insights Teams from Aberdeen City and Aberdeenshire Council. The NHS, Aberdeen & Grampian Chamber of Commerce, Opportunity North East, Robert Gordon University, Aberdeen University, Data Lab, Censis and Scottish Enterprise are also represented on the working group.



**72,000 homes** in the city  
benefitted **full fibre upgrade**



**100 jobs** have been created as a  
result of the investment in  
**full fibre connectivity**



Aberdeen is a  
**'Gigabit City'**

# THE PROGRAMME CURRENTLY CONSISTS OF 4 PROJECTS

## INFRASTRUCTURE – DIGITAL

There are four projects identified to improve digital infrastructure in the Aberdeen City Region, with varying geographic implications:

- City Network Extension (City-wide Fibre Connectivity) - Aberdeen City
- Duct Network Extension – Aberdeen City
- Full Fibre Infrastructure (Gigabit Connectivity). Aberdeen City and Aberdeenshire
- Digital Infrastructure Gap Analysis Business Case

## HEADLINE ACHIEVEMENTS

- The City Network Extension project was completed and connected 57 public sector sites including schools, libraries and other public buildings in the city utilising Aberdeen City Region Deal funding. This is the first Aberdeen City region Deal project to be completed. This project has attracted a £59million investment to the City by CityFibre making Aberdeen a Gigabit City.
- Both Phase 1 (A944) and Phase 2 (A956) works for the Duct Network Extension will be completed at the end of May. Phase 3 works have been approved and construction due to start in September 2022.
- Full Fibre Project won Go Awards social value award.
- A full Digital Infrastructure Gap Analysis Business Case is to be presented to Aberdeen City Region Deal Joint Committee in September 2022.

## PROJECT UPDATES

### PROJECT 1. CITY NETWORK EXTENSION PROJECT – ABERDEEN GIGABIT CITY

The Aberdeen City Council fibre network has extended with additional sites across the city. This has successfully stimulated private sector investment of up to £59 million by City Fibre and Vodafone. Building on the Council's fibre network, City Fibre will utilise this to extend and deploy 800km of fibre within Aberdeen City, providing the majority of the city with access to 'fibre to the premises' at gigabit speeds.

CityFibre's Fibre-To-The-Premises (FTTP) transformation project is quickly building momentum. Until recently, most businesses and homes were connected through old-fashioned copper wires which was slow and unreliable. With FTTP however digital connectivity and speeds are greatly improved, in turn helping to improve businesses and allowing individuals the greater ability to work from home and stream entertainment. This work will also help enable Aberdeen to become a fully 'Smart City.'

Since City Fibre's announcement of £40 million private investment in Aberdeen City in 2018 and a further £19m in January 2022 (delivered in partnership with Vodafone) there has been significant progress. The commercial roll out has continued at pace areas largely complete are Kincorth, Cove, Torry, Garthdee, Kaimhill, Ruthrieston, Seafield, Craigiebuckler, Hazlehead, Ferryhill, Northfield, Heathryfold, Bridge of Don (part), Woodside, Mannofield, Broomhill, Rosehill, Hilton, Mastrick, Sheddocksley, Seaton, and Tillydrone. Currently in-build or programmed for 2022 are Bridge of Don, Bucksburn, Stoneywood, Dyce, and the city centre.

#### Current Update

The City Network Extension project was completed in November 2021. This was the first Aberdeen City Region Deal project to be completed. In January 2022, City Fibre announced a further £19m commercial investment in Aberdeen in order to reach even more of the city with fibre-to-the-premises (FTTP), bringing total City Fibre investment to £59m.

- City roll-out expected to be largely complete by end 2022
- Over 650km of network built to date
- 4 ISPs live and offering services on the local network – Vodafone (launch partner), TalkTalk, Zen and GraniteGiG, with further announcements anticipated in the next year
- Approx 75% of homes in the city passed to date

Aberdeen was the first Gigabit City announced in Scotland and the first to get underway and is now one of the best digitally connected cities in terms of connectivity in the UK. At the Feb 2022 Joint Committee there was comment from Members that the installation works by the contractors had been carried out efficiently and with a minimum of disruption and were received very positively.

**BENEFITS**

Benefits
Private Sector Investment target of £59M
Increased availability of fibre to the premises in Aberdeen City Region target 90,000
Timing additionality – securing a level of investment sooner than would otherwise occur without the proposed project
Scale additionality – securing a level of coverage and future roll-out on a scale that would not occur without the proposed project
Transformation of Aberdeen City into one of the UK’s most connected Cities within two years
Increased number of Internet Service Providers using City Fibre’s full fibre network offering a greater consumer choice and competitive broadband packages.
Increased business resilience and productivity as well as improve ability to work from home through better connectivity.
Early engagement with local developers for new builds to gain access to full fibre network.

**PROJECT 2. FULL FIBRE INFRASTRUCTURE**

Building on what has been achieved in the City Network Extension project, an aggregated public sector demand approach is being taken to extend fibre further into the City Region. This will be primarily achieved by connecting Aberdeenshire Council sites (with NHS and City sites being a beneficiary) to dark fibre. This will enable public services to be delivered to the community that will result in improved delivery of education, health, transport and other services.

The project will also result in an increased footprint of fibre across the City Deal Region. This may act catalyst for further investment by commercial parties to build off this network to provide fibre to our homes and businesses.

Suppliers were invited to tender for new ‘Gigabit Connectivity’ procurement framework. Responses were evaluated and successful bidders were appointed as Framework Suppliers. The call off contract was signed and works commenced in early June 2020.

**Current Update**

There have been 194 sites connected including one additional site (a new school) to be connected in Summer 2023 once the building has been constructed.

Also, at the Go Awards ceremony held on 19 April 2022, the Aberdeen City Region Deal funded Full Fibre project was announced as the outright winner of the prestigious Social Value Award. The award specifically recognised innovative and ambitious approaches to community benefits/social value devised by Commercial & Procurement Shared Services. The project is a collaborative partnership between Aberdeen City Council, Aberdeenshire Council, NHS Grampian and NEOS Networks (the supplier.) Conscious, explicit links were made between community benefit outcomes sought in the project and relevant national and local socio-economic priorities such as: inclusive economic growth, digital inclusion, employability & skills and community support  
Lorna Ormiston (Projects Director – Neos Networks)

“This award is fantastic recognition of genuine hard work and collaboration. Neos Networks are pleased to have partnered with all stakeholders in delivering real tangible improvements to the local area as a result of the delivery of full fibre.

We have also focused on additional goals around achieving apprenticeships, supporting foundation apprenticeships and upskilling in the local schools through our STEM education packages. This has had a positive impact in the local area, and we look forward to continuing working together in the years ahead.”

**Megan, Apprentice**

“Working at Neos Networks during my placement has helped me build my skillset and my confidence. Most importantly, I am a step closer to passing my Foundation apprenticeship which will enable me to qualify for my chosen college course and prepare me for my future career.”

**BENEFITS**

Benefit	Measures
Businesses and homes will have access to ultrafast digital services	No. of businesses passed by fibre (within 50 metres) No. SMEs connected to, and number of residential homes passed
Increased number of premises within Aberdeenshire to be addressable by full fibre (within 200 metres)	No. of urban premises No. of rural premises
Invest in ultrafast fibre along the development corridors to key employment centres and leisure locations	Fibre along primary travel to work routes

**FULL FIBRE COMMUNITY BENEFITS**

This project has provided significant community benefits to date. The successful contractor, Neos Networks (formerly SSE Telecoms) has supported seven apprenticeships on the project as well as three structured work placements, each lasted five days a week over eight weeks. There have also been further community outreach activities including five facilitated professional courses for the programme team to upskill the workforce, and 100 hours of staff time working with community organisations, including to help digitally isolated individuals gain access to devices. Neos Networks are also running grass-roots workshops with school pupils to teach them about STEM careers and to help develop interview skills for future job applications. They are advocating for STEM graduates to join their organisation, delivering guest lectures at universities and creating opportunities for interns at Neos Networks.

**CASE STUDY**

The GO Awards Scotland recognise achievement and excellence in procurement. At a ceremony held on 19 April 2022, the **Aberdeen City Region Deal funded Full Fibre Project** was announced as the outright winner of the prestigious Social Value Award. The award specifically recognised innovative and ambitious approaches to community benefits/social value in the **Gigabit Framework** which was key to the success of the project. The Full Fibre Project is a collaborative partnership between Aberdeen City Council, Aberdeenshire Council, NHS Grampian and NEOS Networks (the supplier), under the Aberdeen City Region Deal, to bring full-fibre connectivity to the region to boost economic activity, quality of life and improve the delivery of public services. The project consciously made explicit links between community benefit outcomes and key national and local socio-economic priorities such as: **inclusive economic growth, digital inclusion, employability & skills and community support**. Neos Networks is proud to announce that the project is helping to better enable and connect a traditionally hard to reach region to telecoms infrastructure.



Despite the challenges presented by Covid-19, Neos Networks has worked in close partnership with the Council and key stakeholders to deliver an extremely ambitious and creative programme of community benefits that will leave an enduring legacy beyond the life of the framework. **#abzdeal** will continue to apply the same principles and values to make a meaningful contribution to inclusive economic growth/a green wellbeing economy in future projects involving multiple stakeholders.

**Lorna Ormiston (Projects Director – Neos Networks) commented:**

*“This award is fantastic recognition of genuine hard work and collaboration. Neos Networks are pleased to have partnered with all stakeholders in delivering real tangible improvements to the local area as a result of the delivery of full fibre.” We have also focused on additional goals around achieving apprenticeships, supporting foundation apprenticeships and upskilling in the local schools through our STEM education packages. This has had a positive impact in the local area, and we look forward to continuing working together in the years ahead.”*

**Scottish Government Economy Secretary Kate Forbes said:**

*“I congratulate the winner on this achievement. This award is positive recognition of how the Full Fibre Project has managed to bring wider community benefits through the public procurement process.*

*“In addition to supporting increased ultrafast fibre connectivity, the project has supported apprenticeships, work placements, upskilling courses and STEM career promotion in schools.*

*“I am delighted to see the positive outcomes that are being achieved by the Scottish Government’s investment in digital infrastructure projects through the Deal and additional side-package funding. This amounts to £15 million overall.”*

**UK Government Minister for Scotland Iain Stewart said:**

*“It is fantastic that the Full Fibre Project, backed by £3 million City Deal funding from the UK Government, has won this award for creating social value while drastically improving digital connectivity.*

*“Across Scotland the UK Government has announced £2 billion of investment for regional initiatives to level up communities.”*

### PROJECT 3. DUCT NETWORK EXTENSION

Initially this duct network would be for Council use, followed by engagement with commercial organisations to encourage them to utilise the expanded network to enhance their fibre offering in Aberdeen City, consequently stimulating the market. This project also provides the enabling infrastructure for the proposed sensor network and provide the opportunity for Aberdeen City to be used as a testbed for connected and autonomous vehicles and support 5G installations

#### Current Update

In February 2022, the Joint Committee agreed a change request for a Phase 3 with the preferred route as follows:

- Union Street, Holburn Street to Garthdee Roundabout
- Garthdee Roundabout to Haudagain (Hilton Drive)
- Completion of Northern Route (King St north to AWPR)

This route has been selected as it would follow standard communications design for maximum coverage and to have multiple resilience points to reduce any downtime. It should be noted this is in reference to a communications network for the traffic management network.

These works would then allow for majority of the strategic road network to be completed and an additional 17.5km build within the project. Design work is anticipated to begin May 2022 with works starting in August 2022 and completion December 2023.

ACC is moving towards becoming a carbon neutral organisation. As part of this project efforts will be made to co-ordinate on-site works to be made just the once, for example footpath upgrade and installation of duct network, to reduce the carbon impact. There is more of an opportunity to realise this as the works are being undertaken internally compared to if ACC appointed an external contractor.

In terms of community benefits the infrastructure provides the facilities to allow the Aberdeen City Region to function as a testbed where new infrastructure and service providers, technologies and services can be rapidly deployed and assessed-for example safer traffic management, the pilot being deployed to test multiple detection techniques and the anticipated CAV technology. Additionally, it helps improve the digital infrastructure to allow public services to be delivered more cost effectively to a larger proportion of residents.

ACC is already a major employer in the city and the works will be undertaken by experienced, skilled road workers to a high quality. There could be the opportunity to employ an apprentice for the Phase 3 duration through the CRD funding.

## BENEFITS

Benefits	Target Measures
Stimulate the market to increase competition	Three communication providers in the local market 2023
Quickly deploying 5G small cell	No. of small-cell communication sites Target 30 Uptake of 5G Target 1 Cost of 5G
Early adoption of autonomous vehicles	No. of suppliers testing autonomous vehicles in Aberdeen
Cost-effective Enabling Digital Infrastructure	Ducts along primary travel to work routes Implement smart transport network No. of duct partners (e.g., NHS, Police, Universities, etc.)

## PROJECT 4. DIGITAL INFRASTRUCTURE BUSINESS CASE

A Gap Analysis has been undertaken which develops a plan for continued investment and intervention, more specifically it looked at the following aspects.

- Assessment of commercial infrastructure installed and planned in priority areas
- Reviewed the public sector infrastructure and requirements
- Assessed implications for future Aberdeen City Region Deal programmes to address gaps in the market as well as implications for funding and procurement approach

The Gap Analysis report and options were presented to the Aberdeen City Region Deal Joint Committee in early 2021 with the instruction by Committee for Officers to report back to Committee with the preferred option(s). The full business case will go to Committee in September 2022.

## 6. CHALLENGES, OPPORTUNITIES AND NEXT STEPS

Project	Challenges	Opportunities
Net Zero Technology Centre formerly OGTC	Access to additional funding opportunities.	Active engagement on cross industry net zero projects.
BioHub	Construction project continues to deal with the impact of COVID on supply chain lead times and availability of materials and equipment.	Accelerate research and development productivity and industry collaboration through use of AI and digital to speed up drug discovery and development and bring new therapies and treatments to market.
SeedPod	Impact of construction industry cost volatility and inflation on main construction contract cost and programme.	Increased industry demand for SeedPod outputs in digital and advanced manufacturing, market insights and innovation, and low-carbon production to enhance productivity, maximise foods of the future opportunities and meet net-zero targets.
Aberdeen Harbour Expansion	To complete works at Aberdeen South Harbour after the impact of COVID-19 and subsequent delays.  To complete in context of increasing input prices and transport issues.	Repositioning of the north east as the Net Zero Capital of Europe.  The ETZ is ready to meet the needs of the new business opportunities.  ScotWind bidder's supplier statements - 18GW of power will be generated by offshore developments within 100 nautical miles of the north east of Scotland. There is no better location for developing of renewables than here.  The North East of Scotland Green Freeport will provide game changing opportunities to attract new investment to Scotland. As a trade hub alone, the Port of Aberdeen exported around £820m of goods worldwide in 2021.
Transport Links to Aberdeen South Harbour	Following confirmation of ETZ proposal, and selection of a preferred option, the challenge is maintaining the pace of the design process, continuing to take into account the significant public and stakeholder interest in the project. Programme risks will require to be carefully managed with respect to ongoing design, land assembly, and third-party interfaces, alongside the currently available grant funding window.	Improved Transport Links will be important to realising our Net Zero Vision and linking together proposed opportunity sites.



<p>Strategic Transport Appraisal</p>	<p>COVID-19 has introduced significant changes to travel patterns, demands and behaviours, some of which may last beyond the end of lockdown restrictions. It is anticipated that some of the previously identified problems, opportunities and priorities may require to be re-visited, or re-profiled, during the recovery phase of COVID 19 due to impacts on wider economy and capital / revenue availability.</p>	<p>The conclusion of the STPR process during 2022 will bring clarity around the route-map for the development and implementation of several regionally significant transport schemes.</p> <p>Enhancements being built into the revised Transport Model provide opportunities to test a wider range of future scenarios.</p>
<p>Digital Infrastructure</p>	<p>To continue to attract additional commercial investment in digital infrastructure and gigabit solutions for the most remote and isolated parts of the region.</p> <p>To identify areas not covered in line with unknown Government future plans. Ensure voucher scheme through Scottish Government is taken-up (where appropriate).</p> <p>As highlighted by the pandemic, ensure businesses are digitally resilient and have good connectivity.</p>	<p>Promote the Aberdeen 5G Hub and maximise opportunities for 5G technology.</p> <p>Update the Smart City Strategy to ensure the digital infrastructure in the city region is fully utilised.</p> <p>Investigate and promote the use of the duct network extension for Connected &amp; Autonomous Vehicles (CAVs).</p> <p>Realise the community benefits through good working with contractors and partners and to help ensure the city region has a confident, digital ready workforce.</p>

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## NEXT STEPS

The Grant for 2022/23 totals £34,810,000 for Capital Expenditure for activities set out in the Implementation Plan

Project Area	Implementation Plan 2022/23
Net Zero Technology Centre	<p>2022 key milestones</p> <ul style="list-style-type: none"> <li>• Deliver upon Core Projects and diversify portfolio</li> <li>• Launch of National Subsea Centre</li> <li>• Develop Cross Sector and International Alliances</li> <li>• TechX Cohort 4 Delivered</li> </ul>
BioHub	<ul style="list-style-type: none"> <li>• August 2022 – Procurement for operations contractor in progress</li> <li>• Late 2022 – Completion of main phase of the Construction programme</li> <li>• End Q1 2023 – First incubator tenant signed up</li> <li>• 2022 Checkpoint Review</li> </ul>
SeedPod	<ul style="list-style-type: none"> <li>• July 2022 – Refresh Seedpod business case prepared</li> <li>• September 2022 – Main construction contract tender received</li> <li>• End 2022 – Construction contract awarded</li> <li>• 2024 – Construction project complete</li> </ul>
Aberdeen Harbour Expansion	<ul style="list-style-type: none"> <li>• May 2022 – Completion of quay construction</li> <li>• June 2022 – Completion of navigation and operational aids</li> <li>• August 2022 – Licence to operate received</li> <li>• August 2022 – Potential Phased Opening</li> <li>• October 2022 – Aberdeen South Harbour operational</li> <li>• May-June 2023 – Aberdeen South Harbour Full opening</li> </ul>
Transport Links to Aberdeen South Harbour	<ul style="list-style-type: none"> <li>• June 2022 Appointment of consultants</li> <li>• September 2022 DMRB Stage 2 – Develop Preferred Route</li> <li>• November 2022 Stakeholder Consultation</li> <li>• December 2022 Outline Business Case Submitted</li> </ul>

Image © Felix Mooneeram



Strategic Transport Appraisal	<p>To work with Transport Working Group and develop outline Business Cases for shortlisted projects as agreed at the Checkpoint Review in March 2020</p> <p>2022 key milestones</p> <ul style="list-style-type: none"> <li>• Pathfinder projects – complete and report on scoping exercise</li> <li>• *ASAM – Complete Upgrade – Post AWPR Opening</li> <li>• *ASAM – Commence strategic scenario testing</li> <li>• Initiate Pathfinder projects</li> <li>• Strategic Transport Appraisal – Commence Detailed Appraisal and Business Case Work on specific schemes.</li> <li>• *ASAM – Complete strategic scenario testing</li> </ul> <p><i>*Aberdeen Sub-Area Model (ASAM)</i></p>
Digital	<p><b>City Network Extension</b></p> <ul style="list-style-type: none"> <li>• 2022 – Project Closed. Private Investment continues to develop network</li> </ul> <p><b>Full Fibre Infrastructure</b></p> <ul style="list-style-type: none"> <li>• 2022 No activities required Network build will complete once last site can be completed in summer 2023</li> </ul> <p><b>Duct Network Extension 2022 – 2023 Key Milestones</b></p> <ul style="list-style-type: none"> <li>• May 2022 – Completion of Phase 1 and 2 100%</li> <li>• August 2022 – Begin Phase 3 works</li> <li>• March 2023 – Phase 3 50% complete</li> </ul> <p><b>Gap Analysis</b></p> <ul style="list-style-type: none"> <li>• April-July – Collation of data and information to progress Business Case</li> <li>• August 2022 – Peer Review and Consultation on Business Case</li> <li>• September 2022 – Business Case for approval at Joint Committee</li> <li>• October 2022 – Procurement of preferred options</li> <li>• December 2022 – Implementation</li> </ul>



# 7. BOARD AND MANAGEMENT

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## THE ABERDEEN CITY REGION DEAL PROGRAMME BOARD 2021-22

**Richard Sweetnam**, Chair of the Programme Board and Chief Officer – City Growth, Aberdeen City Council

**Alan Wood**, Director of Infrastructure, Aberdeenshire Council

**Jennifer Crow**, Chief Executive, Opportunity North East

**Mary Beattie**, Head of Finance Aberdeenshire Council

**Paul Macari**, Head of Economy and Place Planning, Aberdeenshire Council

**Matthew Lockley**, Head of Place & Partnerships (Aberdeen City and Aberdeenshire), Scottish Enterprise

**Rab Dickson**, Director, Nestrans

**Jess Anderson**, Team Leader – Regulatory & Compliance, Legal Services, Aberdeen City Council

**Nicola McIntosh**, Finance and Commercial Director, Net Zero Technology Centre

**Julie Wood**, External Partnerships Service Manager, Aberdeen City Council

**John Wilson**, Chief Officer – Capital, Aberdeen City Council

**Sarah Rochester**, Communications and Marketing, Aberdeenshire Council

## THEME LEADS 2022

**Wendy Robertson**, Digital Lead, Aberdeen City Council

**Paul Finch**, Strategic Transport, Nestrans

**Alan McKay**, External Links to Aberdeen South Harbour, Aberdeen City Council

**Nicola McIntosh**, Net Zero Technology Centre

**Lindsay McKenzie**, BioHub & SeedPod Lead, Opportunity North East

**Jon Oakey**, Port of Aberdeen

**John Lovie**, Accountant, Finance, Aberdeenshire Council

**Aigul Gray**, PMO support



## 8. CONTACTS

For more information visit:

[abzdeal.com](http://abzdeal.com)

[investaberdeen.co.uk](http://investaberdeen.co.uk)

To view the Regional Economic Strategy Action Plan visit:

[www.bit.ly/RESactionplan](http://www.bit.ly/RESactionplan)

### WHO TO CONTACT:

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Programme Manager

