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Additional information:

This report accompanies the report to Council on 26 October 2021.

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Edinburgh and South East Scotland City Region Deal Joint Committee

10am, Friday 3 September 2021

City Region Deal Annual Report 2020/21

Item number 5.5

Executive Summary

Each year, the City Region Deal Programme Management Office is required to produce an annual report to assess how well the City Region Deal is aligning towards the overall vision and inclusive growth outcomes for the city region.

The Edinburgh and South East Scotland City Region Deal Annual report summarises progress of the Programme for the third year since the signing of the 15-year programme (August 2020 to July 2021).

The report contains a City Region Deal overview, Financial Statement (for the financial year 2019-20), a short summary of progress on each project and programme and expected milestones to be achieved in the next year. Case studies are included across the report.

The report demonstrates significant progress across the 24 projects and programmes within the City Region Deal. While COVID-19 affected the delivery of some of the projects all are considered to be within acceptable time and budget parameters.

Steve Grimmond

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Edinburgh and South East Scotland City Region Deal Joint Committee

City Region Deal Annual Report 2020/21

1. Recommendations

- 1.1 To note the appended annual report.

2. Background

- 2.1 Each year, the City Region Deal Programme Management Office is required to produce an annual report to assess how well the City Region Deal is aligning towards the overall vision and inclusive growth outcomes for the city region, as stated in Paragraph 3.24 of the [Deal Document](#):

To assess how well the City Region Deal is aligning towards the overall vision and inclusive growth outcomes for the city region, the PMO will produce an Annual Report on all City Region Deal activity. The template for the Annual Report will be agreed with Government. The reports will be presented to the Governments and the Regional Enterprise Council annually.

3. Main report

- 3.1 The Annual Report for 2020/21 is an overall progress report for the City Region Deal programme between 1 August 2020 and 31 July 2021, with the exception of the Financial Statement which contains financial information for the Financial year 2020/21.
- 3.2 It contains a City Region Deal overview, Financial Statement, a short summary of progress on each project and programme and expected milestones to be achieved in the next year. Case studies are included across the report. There is also a short update on the Regional Prosperity Framework, which is the subject of a separate report to this Committee.
- 3.3 The report demonstrates significant progress across the 24 projects and programmes within the City Region Deal. While COVID-19 affected the delivery of some of the projects all are considered to be within acceptable time and budget parameters:
- 6 projects are in Stage 1: Define, which means that the project's business case is yet to be completed (6 in August 2020),
 - 13 are in Stage 2: Implement, which means that the project's business case has been approved by Joint Committee and is in the process of being implemented (13 in August 2020)

- 5 are in Stage 3: Deliver, which means that the project has been implemented and is working towards delivering its objectives (3 in August 2020)
- 14 projects are considered to be on target to be completed on time (green score) or have been completed on time (6 in August 2020)
- 10 projects are delayed, but considered to be within an acceptable range, with management action in place to address the issue (amber score). (18 in August 2020)
- 19 projects are considered to be on target to be completed within the specified budget (green score) or have been completed within the specified budget (15 in August 2020)
- 2 projects are projected to cost more than the specified budget, but considered to be within an acceptable range, with management action in place to address the issue (amber score). (6 in August 2020)

3.4 £64.83 million of Government money was drawn down in the 2020/21, with £62.48 million on Capital projects and £2.35 million on the Revenue programme.

3.5 As well as delivering on the projects in the Deal, the annual report demonstrates that the Governance structure, established to manage City Region Deal activity, has also enabled effective and strong regional partnership working on important cross-regional activities, including:

- Bidding into Phase 1 of the Bus Partnership Fund and securing £3 million to improve bus travel across the region (led by the cross-regional Transport Transition Group);
- Developing, consulting on, and publishing a Regional Prosperity Framework, which will be a catalyst for Regional Prosperity (led by a cross-regional officers' team, steered by the Regional Enterprise Council and overseen by the Elected Member Oversight Committee); and
- Offering a shared view for the future of the region on key consultations and policy changes, including: the Advisory Group on Economic Recovery, the Logan Review, the Union Connectivity Review and the implementation of the Shared Prosperity Fund (through the Directors' Group, Executive Board and Joint Committee)
- Continued to progress cross-regional programmes which started the previous year as responses to the COVID-19 pandemic, including the delivery of the [Bus Priority Rapid Deployment Fund measures to prioritise public transport](#) and increasing the numbers of employers advertising on the [COVID-19 jobs portal](#).

3.6 Looking ahead towards 2021/22, significant developments in project delivery are expected including:

- Official opening of first office building at Borders Innovation Park (Phase 1) in autumn 2021;
- Commencement of junction works at Queen Margaret University for Food and Drink Innovation Hub in autumn 2021;
- Launch of Community Benefits Wishlist Portal (ESESCommunities.org) in winter 2021;
- Completion of the Dunard Centre Revised Business Case in spring 2022;

- Completion of the West Edinburgh Transport Improvement Plan Business Case in spring 2021;
- Opening of the National Robotarium at Heriot-Watt University in spring 2021;
- Full launch of [DataLoch](#) in summer 2022.

4. Financial impact

- 4.1 There is no financial impact relating directly to this report.
- 4.2 The Financial Statement shows that £64.8 million of Government money was drawn down in 2020/21, in line with the financial plan.

5. Alignment with Sustainable, Inclusive Growth Ambitions

- 5.1 Inclusion and sustainability are key drivers for the City Region Deal, and strategic added value scores have been included for each project. Business cases for projects included demonstrate how they will reduce inequalities and tackle the inclusion challenges specific to the city region.
- 5.2 The [City Region Deal Benefits Realisation Plan](#) (BRP) was approved on 4 September 2020. This incorporates indicators that align with the Scottish Government's Inclusive Growth Framework. The impact on equalities, human rights and sustainability will also be measured. A BRP Implementation Plan is currently being developed, with input from key stakeholder groups within and outwith the City Region Deal Governance structure, including a range of representatives from other Scottish City Region and Growth Deals and Scottish and UK Government Departments. As part of this, a viability study, to enhance the monitoring, evaluation and on-going management of the outcomes and impacts of the Deal, is being conducted.
- 5.3 In August 2021, Scottish and UK Government have provided joint guidance for project owners on managing potential carbon emissions associated with Scottish City Region and Regional Growth Deal projects. It accords with HM Treasury Green Book requirements and supports the quantification and minimisation of whole life carbon and the identification of potential barriers to achieving net zero. A workshop with ESESCR Deal project leads has been scheduled for September 2021 to explain the guidance and agree actions required. An update will be provided to the next Joint Committee.

6. Background reading/external references

- 6.1 [City Region Deal Document](#): August 2018

7. Appendices

- 7.1 City Region Deal Annual Report 2020/21



**CITY
REGION
DEAL**

Edinburgh
& South East
Scotland

ANNUAL REPORT

2020-21



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EXECUTIVE SUMMARY

Key Achievements



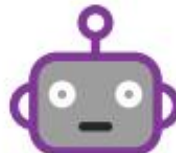
£65 million of Government investment released in 2020/21.
£168 million in total since August 2018.



£50m Housing Infrastructure Fund is up and running, with over £4m drawn down for Dunfermline.



18 out of 26 business cases now approved and are either being implemented or already delivering benefits.



£22.4m purpose-built National Robotarium under construction, and will open in early 2022.



1600 employers have advertised over 3800 vacancies on the COVID-19 jobs portal within the region.



Over 45,000 enrolments at DDI university-credited qualifications and courses on campus and online, and almost 340,000 engaging in less formal training.



Data Skills Workforce Development Portfolio expanded from 5 to 15 courses, with 442 enrolments in data science online learning programmes.



Entire Research, Development and Innovation theme now being implemented, which amounts to £791m - over half of the City Region Deal.



£3m secured from the Bus Partnership Fund Phase 1 to improve transportation and tackle the effects of congestion and developing fuller bids.

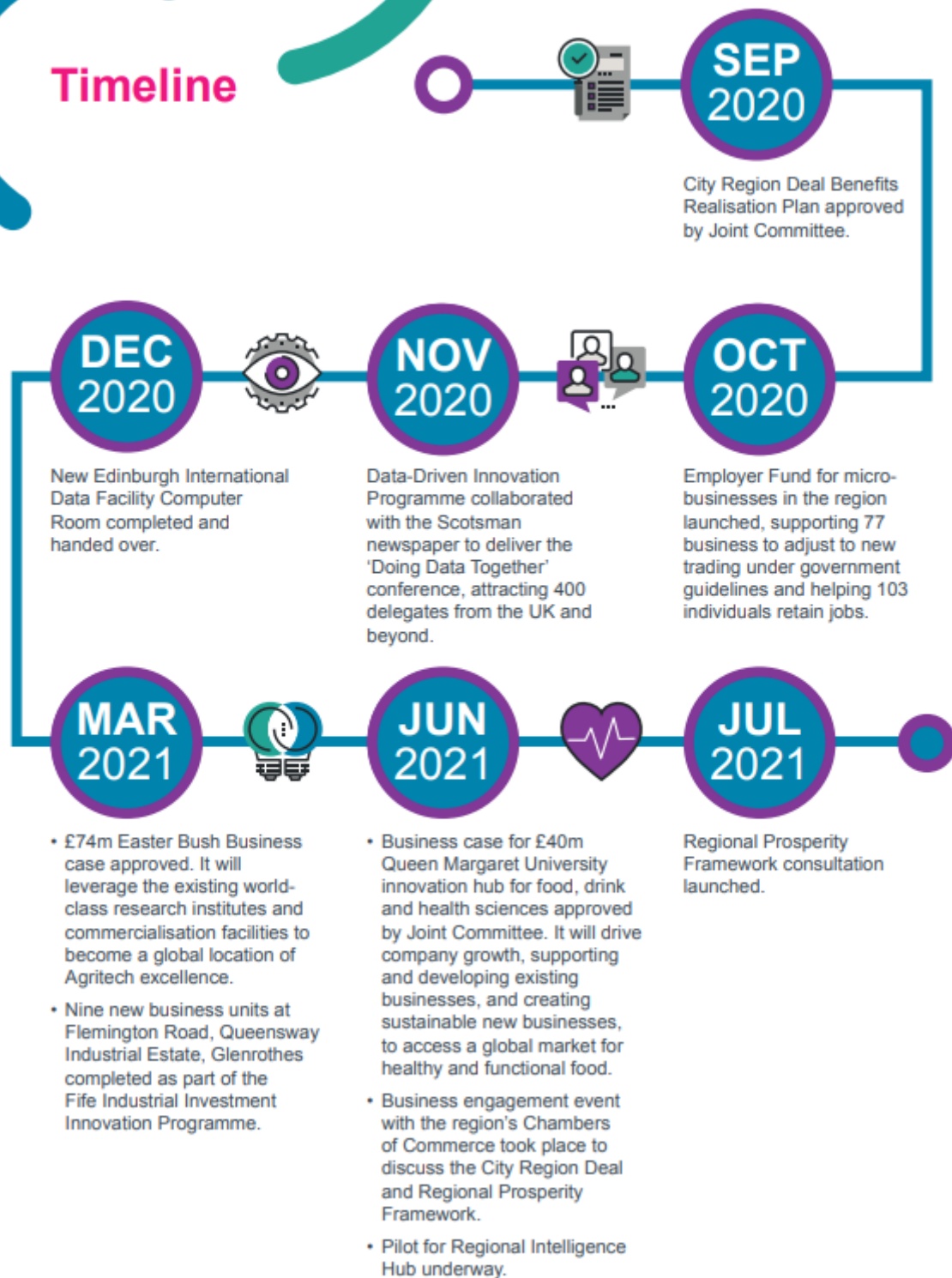


Edinburgh Living Housing company owned by the City of Edinburgh Council - More than 250 families have moved into quality affordable homes.



Work has commenced to select the design team and finalise designs for the food and drink innovation hub in East Lothian, a project funded with £40m through the City Region Deal.

Timeline



Read more about participant experiences throughout the report.

Delivering Results

“Through the Data Skills for Work Programme and with Data Skills Credit Funding, I completed an SQL for Data Course... That was a good call. I needed to use SQL in the very first week of my job” (p.44)

“I put off learning a new programme for so long because I was afraid of being overwhelmed but the course pushed me to start, and it was actually very easy to learn” (p.44)

“Being part of the Fife i3 Programme has allowed us to keep expanding the business... from the same inputs we now produce more useable products and less waste” (p.36)

“Most Gaelic archives couldn't previously be digitalised, the software to do that didn't exist. But we have now developed that software and so Gaelic archives and expeditions can get digital footfall. It's a way of helping their recovery after the pandemic” (p.21)

“I previously never thought that data science could be a career option for me. But now I think - yes I can do this!” (p.41)

“In the early days of the pandemic, students were working all night to get the evidence reviews turned around in time for policy-makers to make the decisions they needed to. Funding from DDI has enabled us to take on two pieces of work for Public Health Scotland” (p.30)

“Investment in the food and drink innovation hub is exactly the kind of catalyst to make collaborative working between Scotland's universities, research base and our food and drink producers happen” (p.32)

“DairyMine ... will help the dairy sector to recover strongly from the pandemic. The more data we have, the easier it is to find patterns in the data” (p.18)

1 FOREWORDS

Cllr David Ross and Cllr David Alexander Conveners of the Edinburgh and South East Scotland City Region Deal Joint Committee

We are three years into the £1.3 billion City Region Deal and, despite challenging circumstances, partners have continued to make great progress on its delivery.

The regional collective - which brings together six local authorities, four universities and six colleges and our Regional Enterprise Council, which provides the voice of the business and third sector - is successfully implementing the Deal as a partnership of equals.



Cllr. David Ross



Cllr. David Alexander

Joint Committee approved four new business cases this year: The Fife Industrial Innovation Phase 2 investment in infrastructure and modern business premises to support economic development; Easter Bush to become a global location of Agritech excellence; Dunfermline Housing (one of seven key strategic areas of change and growth) and the Queen Margaret University Innovation Hub for Food, Drink and Health Sciences. Eighteen projects and programmes, accounting for 90% of the overall Deal, have now been had their business cases approved for implementation.

Our robust governance enabled us to respond quickly to challenges and opportunities. Last year, we successfully secured £3 million from the Bus Partnership Fund (phase 1), £1.8 million for the Bus Priority Rapid Deployment Fund and £410,000 from the Regional Recovery Fund to support Community Wealth Building, regional tourism, the development of a Regional Prosperity Framework and a feasibility study for a data platform to assess outcomes and impacts of City Region Deals.

The City Region Deal is a fantastic example of regional partners, Scottish and UK Governments working jointly to realise our regional ambitions for accelerating inclusive growth, sustainability, prosperity and well-being. We have helped to inform the Advisory Group on Economic Recovery, the Logan Review, the Union Connectivity Review and the implementation of the Shared Prosperity Fund.

Considerable effort has gone into the new Regional Prosperity Framework, which builds on the success of the regional partnership to develop an ambitious 20-year vision for the regional economy to 2041, offering a pipeline of investment opportunities to drive sustainable growth.

We look forward to continuing to work together to create opportunities for the sustainable investment needed to realise our ambitions for a strong and sustainable economic recovery, where the benefits are enjoyed by all.

Claire Pattullo **Chair of Regional Enterprise Council**

It has been a pleasure to reflect on the significant progress made in Year 3 of the Edinburgh and South East Scotland City Region Deal. The REC was formed in November 2018 to advise the Deal's decision-making body, the Joint Committee, on the delivery of projects across the city region. In directly participating on the Joint Committee, we represent business and the third sector across the region and help to ensure that the benefits from the Deal support our shared ambition for achieving sustainable and inclusive economic growth throughout the city region. This influence has been further extended in the past year with strong REC representation on the Elected Member Oversight Committee - which has shaped the ambition and strategic direction of the Regional Prosperity Framework.



Claire Pattullo
Chair, Regional Enterprise Council

REC members bring a broad range of experience, expertise and wide networks to best represent business and the third sector across the city region; and this has been further boosted this year as we welcomed representatives from the Region's Chambers of Commerce and the Federation of Small Business.

REC members actively contributed to the Regional Prosperity Framework vision, and we have continued to help shape the City Region Deal's Benefits Realisation Plan, ensuring that the Deal's inclusive growth focus to reduce inequality and increase wellbeing is at the forefront of its ambition. Guidance has been directly given to strategic sites for housing developments and we are pleased that the Dunfermline Strategic site has received approval. We have encouraged activities to enhance placemaking and that as many construction opportunities as possible go to local people with the help of the Housing and Construction Innovation Skills Gateway and Employer Engagement Initiative. Opinion has also been provided for example on the Logan Review and International Strategy.

The REC is particularly determined to promote the use of Community Wealth Building, to ensure that every Deal programme works together to maximise synergies. The REC advocated for funding for a regional Community Wealth Building project, support which helped secure £185k, of Regional Recovery and Renewal funding to amplify best practice across the city region including Community Benefits, Regional Supply Chain and Fair Employment. This grant was the largest out of the four regional projects backed by the fund.

We look forward to promoting inclusive growth ambitions still further through both City Region Deal activities and wider regional collaboration.

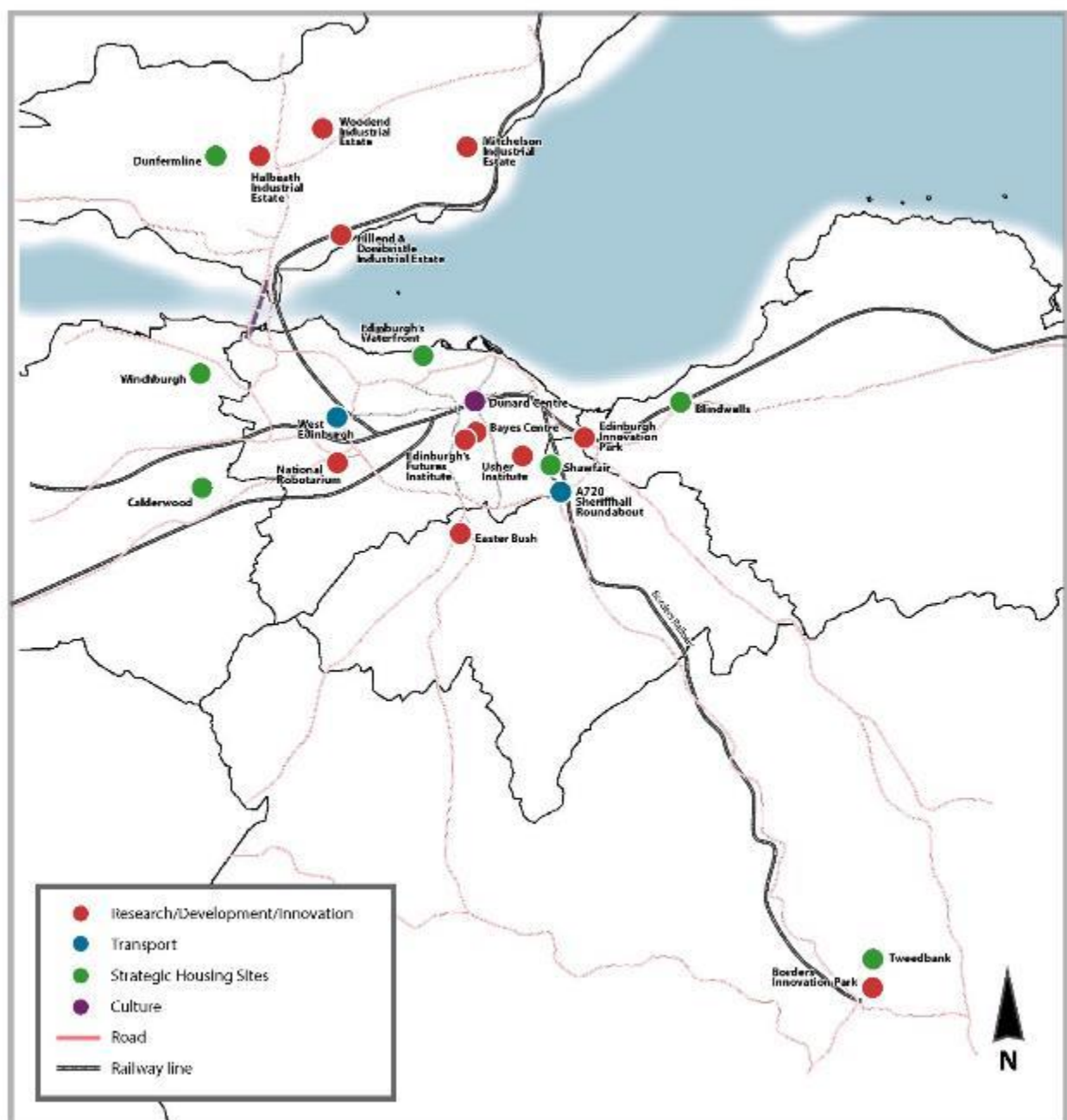
2. CITY REGION DEAL OVERVIEW

STATUS OF PROJECTS AND FINANCES

The Edinburgh and South East Scotland City Region Deal is a £1.3 billion, 15-year programme aimed at driving productivity and reducing inequalities through five key themes:

- Research, Development and Innovation: £791 million
- Integrated Regional Employability and Skills: £25 million
- Transport: £156 million
- Culture: £45 million
- Housing: £313 million

The map below shows where the projects are located across the region:



The 24 City Region Deal projects are listed in the Table below. More detail on the projects, including their current status in Section 4.

Table 1: Status of Programmes and Projects – August 2021

Theme/Programme/Project	Location	(Expected) Business Case Approval	Stage	On Time ?	On Budget ?
Research, Development and Innovation					
Edinburgh International Data Facility (Previously known as World Class Data Infrastructure)	Edinburgh/Midlothian	Dec 18	2. Implement		
Bayes Centre	City of Edinburgh	Dec 18	3. Deliver		
National Robotarium	City of Edinburgh	Dec 18	2. Implement		
Edinburgh Futures Institute	City of Edinburgh	Mar 19	2. Implement		
Usher Institute	City of Edinburgh	Sep 19	2. Implement		
Easter Bush	Midlothian	Mar 21	2. Implement		
Edinburgh Innovation Park (Food and Drink Innovation Hub)	East Lothian	Jun 21	2. Implement		
Fife Industrial Innovation Investment	Fife	Mar 19	2. Implement		
Borders Innovation Park	Scottish Borders	Mar 19	2. Implement		
Integrated Regional Employability and Skills	<i>Cross-Regional</i>	Dec 18			
• Integrated Knowledge Systems	<i>Cross-Regional</i>	Jun 19	3. Deliver		
• Labour Market Analysis and Evaluation	<i>Cross-Regional</i>	Jun 19	3. Deliver		
• Integrated Employer Engagement	<i>Cross-Regional</i>	Jun 19	2. Implement		
• Intensive Family Support	<i>Cross-Regional</i>	Mar 19	3. Deliver		
• Data-Driven Innovation Skills Gateway	<i>Cross-Regional</i>	Mar 19	2. Implement		
• Housing and Construction Infrastructure Skills Gateway	<i>Cross-Regional</i>	Mar 19	2. Implement		
• Workforce Mobility	<i>Cross-Regional</i>	Jun 19	2. Implement		

Transport					
West Edinburgh	City of Edinburgh	TBC	1. Define		
A720 (Sheriffhall Roundabout)	City of Edinburgh/ Midlothian	TBC	1. Define		
Culture					
Dunard Centre	City of Edinburgh	Dec 18 *	1. Define		
Regional Housing Programme	Cross-regional	Sep 19 (work programme report)			
Affordable housing programme	Cross-regional	N/A	1. Define (and 3. Deliver)		N/A
Seven Strategic sites	Cross-regional	Winchburgh: Aug 18 Dunfermline: Jun 21 Others TBC	1. Define (and 2. Implement)		
Innovation and skills	Cross-regional	N/A	2. Implement		N/A
Infrastructure, funding and land assembly	Cross-regional	N/A	1. Define		N/A
Edinburgh Living (housing company)	Cross-regional	N/A	3. Deliver		

*Revised business case under development (see Section 5 for more information).

Key:

Project Stages

Stage no.	Definition
1. Define	Business case being developed, and not yet approved by Thematic Board and Joint Committee.
2. Implement	Business case has been approved by Thematic Board and Joint Committee, and is being implemented. In a capital project, this may be construction; for skills projects this may be establishing a course or system.
3. Deliver	Project is in place and monitoring and evaluation is in framework to assess if it is achieving its objectives.
4. Legacy	Project has resulted in mainstreaming or improvements to business as usual (impact) that is generated beyond the funded period

Red, Amber, Green

T: Status against **timeline** set out in business case/implementation plan; B: Status against **budget** set out in financial plan

RAG Status	Definition - Timeline	Definition - Budget	Action Required
Green	In line with business case/implementation plan	In line with financial plan.	No management action required
Amber	Delay is considered acceptable by PMO.	Within acceptable range.	Management action is in place by senior management to address issues, and project is being closely monitored.
Red	Delay is significant.	Outwith acceptable range.	Immediate action is required by senior management and relevant Boards as appropriate to address issues. Issues must be highlighted to Government.

Stages

As of 1 August 2021:

- 6 projects are in Stage 1: Define, which means that the project's business case is yet to be completed (8 in August 2020)
- 13 are in Stage 2: Implement, which means that the project's business case has been approved by Joint Committee and is in the process of being implemented (13 in August 2020)
- 5 are in Stage 3: Deliver, which means that the project has been implemented and is working towards delivering its objectives (3 in August 2020)

Time and Budget

Last year's annual report showed that COVID-19 had affected the delivery of some of the projects, but all were within acceptable time and budget parameters. This year, despite the pandemic continuing to be affect delivery, further progress has been made in implementing the programme.

- 14 projects are considered to be on target to be completed on time (green score) or have been completed on time (6 in August 2020)
- 10 projects are delayed, but considered to be within an acceptable range, with management action in place to address the issue (amber score). (18 in August 2019)
- 19 projects are considered to be on target to be completed within the specified budget (green score) or have been completed within the specified budget (15 in August 2019)
- 2 projects are projected to cost more than the specified budget, but considered to be within an acceptable range, with management action in place to address the issue (amber score). (6 in August 2019)

OUR APPROACH TO BENEFITS REALISATION

In taking forward the Benefits Realisation Plan (approved by the [Joint Committee in September 2020](#)) each City Region Deal theme has been examining how best to monitor and evaluate future impacts. Individually, themes have identified a range of approaches (including bespoke surveys, refining existing data and customer relationship management monitoring systems, creating new data sets and adopting the measures used in the [Scottish Government's National Performance Framework](#) and other similar indices).

In reviewing this "long list" of approaches, the Programme Management Office and Theme leads also identified significant opportunities to enhance the efficiency and quality of future impact measurement by, for example:

- Co-ordinating partners' existing data sets and approaches to monitoring and evaluation (M&E) both within the City Region Deal and in co-ordination with other City Region Deals; and
- Accessing information from both Scottish and UK Governments that is not available on an "open basis"; engaging with existing or emerging (Government) initiatives that might support better M&E outcomes; and, benchmarking "best practice" approaches.

To test whether such opportunities might be realised, in March 2021 the Programme Management Office successfully applied for regional recovery and renewal funding from the Scottish Government to undertake a: "feasibility study for a public/private sector data platform to assess the outcomes and impacts of the City Region Deal".

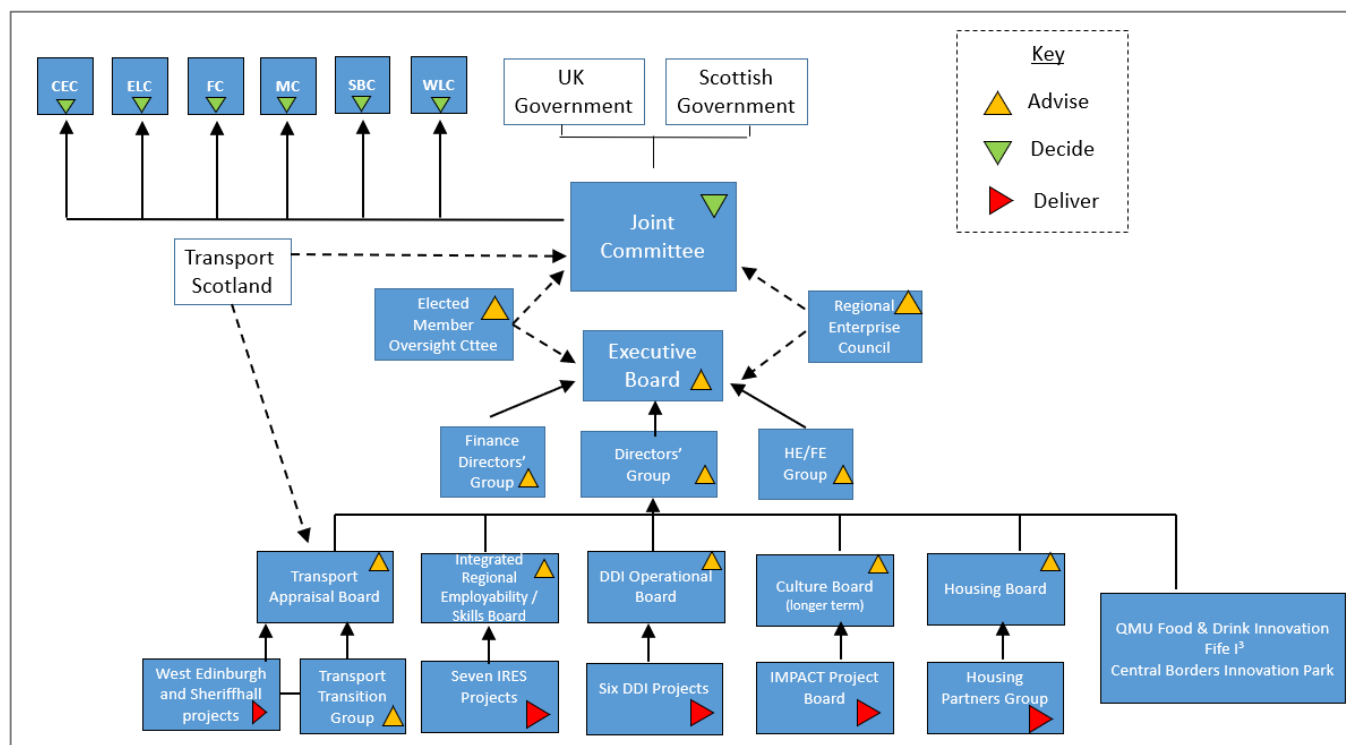
The focus of this study has been to assess the potential, and recommend approaches, to accelerate the co-ordination of data, and the M&E of this data, in a consistent and more efficient way to support the management of benefits realisation for the City Region and potentially other Deal areas.

Based on extensive consultation, and qualitative option appraisals, the study recommends three (complementary) approaches to enhance M&E:

- Support for the newly formed CRD Data Intelligence Group to examine co-ordination of M&E across linked impacts (such as Community Benefits, Environment and Fair Work) as well as the wider co-ordination of M&E and potentially “self-assessment” protocols with other CRDs;
- A cross-CRD approach reflecting the broader opportunity to collaborating and integrating Benefits Realisation Planning and M&E efforts across all the City Region Deals in Scotland (and potentially other home countries); and,
- From positive discussions to date with the Scottish Government, there may be longer term opportunities to both access data for the purposes of testing net impacts and co-developing M&E practices/reporting.

GOVERNANCE

The City Region Deal has a comprehensive governance structure, as shown below. This is summarised in the diagram below. There is more detail on the Boards and Groups in Section 3 of the [Deal Document](#):



4. FINANCIAL STATEMENT

This City Region Deal identifies new and more collaborative ways that partners will work with UK Government and Scottish Governments to deliver change to the city regional economy. The Governments will jointly invest £600 million over the next 15 years and regional partners committed to adding in excess of £700 million, overall representing a deal worth £1.3 billion. A summary of the City Region Deal total over a fifteen-year period is shown in the Table 2:

Table 2 Edinburgh and South-East Scotland City Region Deal Financial Summary

Project	SG contribution (£m)	UKG contribution (£m)	Partner contribution (£m)	Total amount (£m)
Food and Drink Innovation Campus	1.42	28.58	22.00	52.00
Bayes Centre	2.24	30.31	68.50	101.05
National Robotarium	1.43	21.04	-	22.47
Edinburgh Futures Institute	2.24	55.68	131.38	189.30
Usher Institute	0.73	48.46	35.40	84.59
World Class Data Infrastructure	0.67	78.93	111.03	190.63
Easter Bush	1.27	16.10	25.23	42.60
Easter Bush Link Road	-	10.90	19.10	30.00
Business Innovation – Fife	35.00	-	14.43	49.43
Business Innovation – Scottish Borders	15.00	-	14.05	29.05
Total Research, development and innovation	60.00	290.00	441.12	791.12
IMPACT/Dunard Concert Hall	10.00	10.00	24.99	44.99
Total Culture	10.00	10.00	24.99	44.99
Integrated Regional Employability & Skills Programme	25.00	-	-	25.00
Total Integrated Regional Employability & Skills	25.00	-	-	25.00
Sheriffhall Roundabout Upgrade*	120.00	-	-	120.00
West Edinburgh Public Transport Infrastructure	20.00	-	16.00	36.00
Total Transport	140.00	-	16.00	156.00
New Housing Partnership (Edinburgh Living LLP) **	15.00	-	248.00	263.00
Housing Infrastructure**	50.00	-	-	50.00
Total Housing	65.00	-	248.00	313.00
Grand Total	300.00	300.00	730.11	1,330.11

*Includes £120m for Sheriffhall roundabout to be delivered by Transport Scotland

** Funding issued by Scottish Government (Housing)

The City Region Deal Financial Summary for the period of April 2020 to March 2021 is set out in Table 3. Total expenditure and grant claimed for the year, amounts to £59.07 million. With £56.72 million on Capital projects and £2.35 million on the Revenue programme.

Table 3 Edinburgh and South-East Scotland City Region Deal 2020-21

Project	2020-21		Cumulative (2018/19 - 2020/21)	
	CRD Spend (£'000)	CRD Grant claimed (£'000)	CRD Grant claimed (£'000)	CRD Grant % claimed
Food and Drink Innovation Campus	0	0	0	0
Bayes Centre	0	0	32,545	100.0%
National Robotarium	1,054	1,054	2,054	9.1%
Edinburgh Futures Institute	15,679	15,679	49,899	86.2%
Usher Institute	4,244	4,244	5,748	11.7%
Edinburgh International Data Facility <i>formerly (WCDI)</i>	15,563	15,563	32,987	41.4%
Easter Bush	16,424	16,424	16,424	94.6%
Easter Bush Link Road	0	0	0	0.0%
Business Innovation – Fife Industrial Innovation Investment	3,620	3,620	5,053	14.4%
Business Innovation – Scottish Borders Innovation Park	119	119	200	1.3%
Total Research, development and innovation	56,704	56,704	144,910	41.4%
IMPACT - Dunard Concert Hall	0	0	0	0.0%
Total Culture	0	0	0	0.0%
Integrated Regional Employability & Skills Programme	2,354	2,354	3,411	13.6%
Total Integrated Regional Employability & Skills	2,354	2,354	3,411	13.6%
Sheriffhall Roundabout Upgrade*	762	762	4,453	3.7%
West Edinburgh Public Transport Infrastructure	14	14	14	0.1%
Total Transport	776	776	4,467	3.2%
New Housing Partnership (Edinburgh Living LLP) **	5,000	5,000	15,000	100.0%
Housing Infrastructure**	0	0	0	0.0%
Total Housing	5,000	5,000	15,000	23.1%
Grand Total	64,833	64,833	167,788	28.0%

*Scottish Government funded. Transport Scotland taking forward scheme delivery.

** Funding issued by Scottish Government (Housing)

The City Region Deal cumulative grant claimed total for the period of April 2018 to March 2021, amounts to £167.8 million. This includes funding issued by Transport Scotland and Scottish Government Housing Department.

4. THE DEAL – SUMMARY OF PROGRESS

This section summarises the themes, programmes and projects within the City Region Deal. It details the progress that has been made in line with the Implementation Plan and highlights any current risks.

Quarterly performance reports are shared between the PMO and Governments throughout the year and are published at each Joint Committee meeting.

RESEARCH, DEVELOPMENT AND INNOVATION

Data-Driven Innovation

In last year's report, the [Data-Driven Innovation](#) (DDI) programme reported that it had drawn down almost £90m in Government funding via the City Region Deal, as investment for the creation of the Data-Driven Innovation hubs – the Bayes Centre, Edinburgh Futures Institute, Usher Institute, Easter Bush, and National Robotarium – co-delivered with Heriot-Watt University. This year, total drawdown in the local authority financial year to 31 March 2021 was £51.9m.

Despite the considerable challenges of COVID-19, delivery against targets continues at pace. There have been over 40,000 enrolments on DDI talent qualifications and courses and more than 100 entrepreneurial companies have been supported or created. In DDI-related research income, over £300m has been recognised and nearly £100m has been committed in DDI industry partnerships.

In March, £74m of City Region Deal funding was approved for a new AgriTech hub at the Easter Bush campus. This was the last of five DDI business cases to be approved by the City Region Deal's joint committee, and so represented a major milestone. The Easter Bush investment will support the combining of research and technology to improve the efficiency and output of agriculture and enhance worldwide food security.

Also in March, the Usher Institute led the first national study to confirm that vaccination was linked to a substantial reduction in the risk of COVID-19 admissions to Scotland's hospitals. The research showed that by the fourth week after receiving the initial dose, the Pfizer and Oxford-AstraZeneca vaccines reduced the risk of hospitalisation by up to 85 per cent and 94 per cent, respectively.

Ground-breaking research like this is supported by vital data infrastructure, which the DDI programme is also helping to create in the city region. In autumn 2020, the [DataLoch](#) repository was created to bring together health and social care data for the first time, driving forward data-driven approaches to improving care. This was followed in February 2021 with the purchase of the world's fastest AI computer, the Cerebras CS-1, for the [Edinburgh International Data Facility](#). Cerebras CS-1 will be used for unprecedented AI scalability and massive data handling capability, ultimately providing a fantastic facility for DDI activity and research.

SUPPORTING REGIONAL COVID-19 RECOVERY

Apart from supporting the creation and development of the DDI hubs, one of the year's main highlights was coordination by the DDI programme of £4m of COVID-19 recovery funding from the Scottish Funding Council. The funding was split into three strands; 'Building Back Better', 'Supporting recovery and growth through entrepreneurship' and 'Adapting to new ways of operating' delivered in coordination between the DDI hubs, and other teams across the University of Edinburgh.

As part of this, DDI issued an 'open call' for research proposals and awarded funding to 21 projects to apply data-driven innovation for economic and social recovery in the city region. These included projects to tackle homelessness, promote tourism recovery, and job retention in the football industry. A tool to help farmers make better decisions about what to feed their livestock has generated a wealth of open-access data.

BAYES CENTRE

The [Bayes Centre](#) is the University of Edinburgh's innovation hub for data science and artificial intelligence. It offers a new kind of collaborative, multidisciplinary proving ground where we develop innovative technological solutions for the benefit of society. It is a community of internationally recognised scientists, outstanding PhD students, leading industry experts and innovation support professionals, working together across disciplines and sectors to advance data technology and apply it to real-world applications.



The Centre builds on the University's academic excellence in the mathematical, computational, engineering, and natural sciences, and translates these combined strengths to impact with a focus on the application of digital technology, robotics and autonomous systems, and space and satellites to the challenges of our partners. Data science education, tech entrepreneurship, and industrially driven, multidisciplinary R&D are the core pillars of its strategy to boost the University's impact across the city, region, nationally, and internationally through new activity that complements the existing strengths of our community.

In the context of the communities we serve, the Bayes Centre strategy involves focussed effort to collaborate with and across the DDI and College networks, providing Bayes services and expertise in key areas to support targets and priorities across all sectors and research strategy.

Having opened in October 2018, the Bayes Centre has a growing track record of activities and outputs - including the creation of almost 400 new high-value jobs, generating £38m of R&D investment, and helping start-ups raise over £90m, and engaging over 7000 people in up-skilling activities. Work has progressed at pace despite the COVID-19 disruption in 2020/21, with the team looking forward to welcoming a range of new members and partners during 2021/22 to supplement the 30 external organisations and programme participants who are co-located in the award-winning £40m Bayes Centre building.

The Bayes vision for 2021-22 is to reinvigorate industry engagement, expand the support we provide to research communities, and enhance the sustainability of our educational and entrepreneurial programmes. Our strategy is closely linked to the University's objectives around becoming the Data Capital of Europe, expanding our global leadership in AI and the use of data with integrity, enabling global and lifelong participation through digital learning programmes, and amplifying our impact through external partnership and co-creation of innovative solutions to societal challenges.

Headline achievements in the past year

- Expanded the [Data Skills Workforce Development](#) (WFD) Portfolio from five courses in 19/20 to 15 courses, and increased student numbers (442 student course enrolments) in data science online learning programmes; Data Science, Technology, and Innovation (DSTI) in 20/21.
- Provided leadership in expanding data science education and training provision as part of the University's Curriculum Transformation Programme.
- Supported a broad range of major interdisciplinary research funding bids with major data science components.
- Led development of the University AI Strategy, creating opportunities to expand growth of DDI activities and articulation of future contributions to Scottish and UK national AI strategies.
- By the end of March 2021, undertook over 2,000 significant interactions with public, private and third sector organisations.
- Cohort four of the [Bayes AI Scale-up Accelerator](#), received over 90 applications of which 15 were successful; 36 companies were selected to form the EIE21 cohort, with the event proceeding virtually on 10 June 2021.

Next Milestones

The Bayes vision for 2021-22 is to reinvigorate industry engagement, expand the support provided to research communities, and enhance the sustainability of our educational and entrepreneurial programmes. Our strategy is closely linked to the University's objectives around becoming the Data Capital of Europe, expanding our global leadership in AI and the use of data with integrity, enabling global and lifelong participation through digital learning programmes, and amplifying our impact through external partnership and co-creation of innovative solutions to societal challenges.

Due date	Milestone
Oct 2021	Establish collaboration structure with National Robotarium , identifying opportunities for growth in Robotics and Autonomous systems across UoE and HWU, and supporting coordination of DDI delivery activity in this area.
Oct 2021	Broaden academic engagement through an Academic Affiliate model and build on recently established series of Bayes Forum townhall and Turing@Edinburgh events to strengthen connectivity and awareness of Bayes activity across University-wide academic communities.
Dec 2021	Support the development of new Space & Satellites Earth Observation PGT Programme , coordinating the delivery of a first Earth Observation PGT course en-route to establishing a new MSc within the School of Geosciences.
Jan 2022	Pursue funding to support entrepreneurship and industry engagement objectives through renewal of the Bayes Innovation Programme, with particular focus on extending the profile and reach of the EIE programme.
Jan 2022	Develop a long-term Bayes Data Strategy within the context of wider EIDF developments.
Jan 2022	Enhance general data science provision at all levels of the University of Edinburgh curriculum, whilst developing a curricular structure that enables student access to entrepreneurship and scale-up activities.
Apr 2022	Develop collaborative propositions in Digital Twinning for urban living and infrastructure.
Jul 2022	Create five major funding propositions in Space & Satellites with a focus on climate AI/sustainability/net-zero research, strengthening collaborative links across UoE and with STFC, and Satellite Applications Catapult.
Jul 2022	Drive strategic growth in AI and Health by bringing together academic networks and developing five major funding propositions with significant Bayes leadership, working closely across the other DDI hubs and with colleagues in key university schools.
Jul 2022	Continue to develop the portfolio and sustainability of Workforce Development courses, aiming to build on current portfolio with a target of 500 enrolments. Secure an institution-wide business model to evidence sustainability beyond the existing SFC funded period.
Jul 2022	Build a pipeline of fifteen commercialisation opportunities in Space & Satellites and deliver five industry engagement events.

CASE STUDY – EIE 2021

The [EIE21](#) technology investor showcase event took place on 10 June 2021, and was once again held over a bespoke 6Connex virtual platform. The investor day showcased 35 data-driven cutting-edge tech start-ups as they pitched for funding from seed to series A.



After a Welcome from Kate Forbes MSP, Scottish Government Cabinet Secretary for Finance and the Economy, the day got underway with 25 companies completing 3-minute pitches during the morning session. In the afternoon session 10 companies had the opportunity for extended pitches which lasted for five minutes, followed by five minutes Q&A from Investor Panels.

The 10 companies delivering an extended pitch were: [Beta Bugs](#), [Bridgeweave](#), [Earth Blox](#), [GoBubble](#), [Ionburst](#), [iOpt](#), [Libereat](#), [Nebu-Flow](#), [Net AI](#) and [Transwap](#), all of whom were eligible for being voted as Pitch of the Day by the EIE21 audience.

From this fantastic line up, Ionburst stood out from the crowd and received the most votes to emerge as the Pitch of the Day winner. The company's platform addresses data leaks in the cloud for SMEs and larger corporates at a time when hackers and ransomware are becoming more prevalent worldwide.

"We're delighted to win EIE21, it's such a prestigious event and the standard of competition was incredibly high, and now that EIE has showcased us we look forward to speaking to investors that want to help us build a global business." Anne Lanc, Chief Financial Officer, Ionburst

The audience also got to hear from a world class speaker line-up that included Sir Ronald Cohen, Chairman of the Global Steering Group for Impact Investment, Professor Peter Mathieson, Principal and Vice Chancellor of the University of Edinburgh, Mike Welch OBE, Founder of Tirescanner, and Lesley Eccles, Founder of Hello Relish, and co-Founder at FanDuel.

EASTER BUSH

The East Bush Agritech Hub seeks to leverage the existing world-class research institutes and commercialisation facilities in order that Easter Bush is a global location of agriscience and agribusiness excellence. The Easter Bush AgriTech Hub aims to develop world-leading research capability in data science. It will address skills shortages and gaps in the industry, as well as encourage graduates to set up or join micro-agritech companies. The Hub will bring together researchers from the University of Edinburgh and other higher education institutions, along with commercial, public and third sector organisations, in collaboration with project partners Midlothian Council.



The AgriTech Data Hub is nucleated at the [Royal \(Dick\) School of Veterinary Studies](#) Easter Bush Campus – Europe’s largest concentration of animal science research expertise – where [the Roslin Institute](#) is located, with reach across the whole University of Edinburgh. The Hub will foster collaboration between researchers and companies to contribute to global food systems, work towards net zero carbon in the agriculture sector, combat animal disease, and to inform food and environmental policies.

Experts in the Hub will use data to develop genetics and health innovations for agricultural science and business, and to build initiatives, prediction and preparedness into novel systems of production. It will work in innovative areas, such as data-driven breeding and aquaculture, to enable data generation and analysis that will improve the agriculture industry worldwide. The investment will transform the scale and impact of agricultural technology in outputs from teaching, research, and innovation.

Road improvements to create the A701 relief road and A702 link will provide enhanced access to the Easter Bush campus, suitable for a campus of this scale, from Edinburgh city centre, other University campuses and the surrounding regions, thus ensuring that the campus can continue to grow, and further development can be planned and implemented.

Headline achievements in the past year

- Easter Bush ‘Green Book’ business case approved by City Region Deal Joint Committee in [March 2021](#), and delivery oversight group established in conjunction with Midlothian Council.
- [Easter Bush Science Outreach Centre](#) provided downloadable primary and secondary science resources which engaged with over 42,000 learners.
- Adapted Easter Bush facilities for COVID-19 research and ensured that research activities took a lead role in COVID-19 research activity for the University whilst contributing to the national response.
- Undertook a broad range of activities with external organisations, for example, delivered Food and Farming Futures workshop to explore Agritech opportunities and challenges in a post-Brexit world.
- Launched €2m initiative to develop an online hub to provide accurate, evidence-based information on the use of cells and genetic material to treat disease.
- Since the launch of the [Food & Agriculture Science Transformer \(FAST\)](#), six Founding Analysts/Co-Founders have been recruited with five start-ups being established. Of these ‘newcos’, three are potential [Roslin Innovation Centre](#) tenants.
- Supporting Evidence Based Livestock (SEBI), launched a new five-year programme, ‘[SEBI-Livestock](#)’ which will continue work to monitor the impact of livestock investments, supported by a circa \$8m grant from the Bill and Melinda Gates Foundation.

- Established an Easter Bush Working Committee to enhance the strong working relationships between the University of Edinburgh, Midlothian Council and local communities. It will review, assess and scrutinise the implementation of the Agri-tech and transport workstreams against the stated timescales and funding drawdowns projected in the Business Case, and will take forward specific activities related to the successful implementation of the Business Case.

QUOTE

Dr Gregor Gorjanc – received DDI Beacon funding for his DairyMine project (capitalising on the increasing volume of agricultural data to help Scottish dairy farmers make more efficient breeding choices)

“Agriculture was impacted by the pandemic in many ways. In the dairy farming industry farmers actually had to throw away milk because there was no demand. DairyMine will not solve that problem entirely, but it will help the dairy sector to recover strongly from the pandemic.

With DairyMine we are using all this high volume and high frequency data that we now have thanks to technological advances, and we are looking at what innovation this data will drive.

The more data we have, the easier it is to find patterns in the data. We can now monitor a cow’s milk yield over days rather than months and we can combine that with genomic data so that a farmer can use that information to make an informed breeding decision.

The Roslin Institute has been involved in this line of research for decades. The Roslin Institute is in certain areas a world leader for development of breeding schemes and in collecting agricultural data in an optimal and innovative way.”

Next Milestones

Due Date	Milestone
Apr 2022	Establish a Centre for Aquaculture Genetics and Health (CAGH), developing a business plan to enable a step change in the aquaculture genetics activity for the Agritech Hub.
Apr 2022	Deliver the A3 (Animal Health, Agritech, Aquaculture) conference , now rescheduled to 2022. A3 Scotland 2022.
Jul 2022	Further develop and scale up activities in line with approved Agritech Talent Plan, with specific deliverables in Global Food Security and Nutrition & MSc course in Planetary Health.
Jul 2022	Develop a long-term data strategy and platform appropriate for the future growth in research and adoption activity.
Jul 2022	Strengthen relationship with the new companies that have formed from F.A.S.T. and support the next stage in their development.

CASE STUDY – CROWD-SOURCED DATA SHOWS WHAT LIVESTOCK EAT

A tool to help farmers make better decisions about what to feed their livestock has generated a wealth of open-access data.

You are what you eat, as the old adage goes, also applies to livestock. An animal's feed closely determines its health, and its ability to produce high-quality milk, meat or

eggs. By the same logic, better animal products provide better nutrition to people, and more income to livestock-keepers. Farmers, extension workers, researchers and policymakers working on livestock need a good understanding of animal feeds.

Now a tool makes it possible to visually explore standardised data on what livestock eat.

The data behind the visualisation was generated using the [Feed Assessment Tool](#) (FEAST) and is the product of thousands of data uploads from more than 150 sites in 14 countries. Researchers at the Global Academy of Agriculture and Food Security and the International Livestock Research Institute (ILRI) helped initiate the development of the FEAST Tool, which helps users assess overall availability of feeds, the quality, and the seasonality in a particular site.

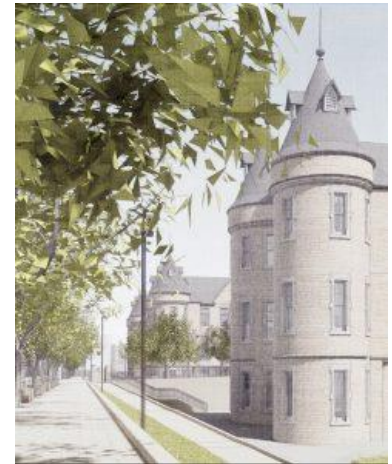
The FEAST tool and the global data repository are available to anyone working on livestock feeds, and to anyone more generally interested in understanding the livestock sector in low-and middle-income countries.

“Sound feed-related data are a requisite for formulation of good policies for sustainable livestock development.” Harinder Makkar, International Development Expert in Sustainable Livestock Production



EDINBURGH FUTURES INSTITUTE

The purpose of the Edinburgh Futures Institute (EFI) is to pursue knowledge and understanding that supports the navigation of complex futures. EFI's distinctiveness stems from our approach to research, education and engagement – an approach that combines multi-disciplinarity with co-production. Working with industry, government and communities at home and abroad, we are building a challenge-led and data-rich portfolio of activity that has demonstrable ethical, social, cultural, economic and environmental impacts.



The biggest challenges facing societies globally are complex and interconnected. Our approach recognises that insight and innovation can come from bringing the arts, humanities and the social sciences into contiguity with data science, engineering, the natural sciences and with medicine. And our ethos and commitment to co-production stems from the University's historic principles of the 'democratic intellect', updated now in Strategy 2030. These principles focus on the civic responsibilities of the University in working with and for its wider communities, and the importance of opening up education to all who can benefit.

EFI's data driven innovation programme focuses on four key sectors: financial services (including fintech); creative industries; tourism and festivals; and public services (including data civics). It is underpinned by two cross cutting themes: the ethical implications of data analytics and artificial intelligence; and the future infrastructure needed to drive social, economic, environmental and cultural inclusion.

Headline achievements in the past year

- Following cross-University scrutiny involving industry input, EFI gained approval for six innovative, interdisciplinary postgraduate degrees to be delivered from September 2022. 12 postgraduate courses and three further undergraduate courses will be piloted from September 2021. EFI's 'fusion' teaching model uses technologies and research-led teaching methods to support interaction and collaboration between students located in different settings.
- EFI developed and published its research strategy; supported colleagues across the University to secure major interdisciplinary research funding awards totalling £25m and provided input to the development of a further £96m funding proposals. Working with the Centre for Data, Culture and Society EFI continued to build capacity in interdisciplinary data-driven research through grants to support networks and projects.
- Launched the Centre for Technomoral Futures, supported initially with a generous gift from global investment firm Baillie Gifford, with a mission to unify technical and moral modes of future-building expertise in new models of research, education, design and engagement that directly serve the goals of sustainable, just and ethical innovation.
- Launched the EFI TravelTech Cluster, supported by Scottish Enterprise funding, to enable the tourism sector and digital companies to explore new opportunities for growth by building connections across the TravelTech sector.
- On behalf of the University of Edinburgh, launched the Edinburgh Futures Conversations event series to promote global understanding and cooperation, and to contribute action-oriented thinking to the public debate about the world's response to COVID-19. The first event, *The Future of Health*, saw experts from around the world share their perspectives of the pandemic and explore how to change and reshape public health systems to transform outcomes. In addition the EFI events programme delivered a range of events attracting over 3,000 members of the public.

- Developed the Data and Design Lab concept, in partnership with the Bayes Institute, and delivered four demonstrator projects using design thinking to support businesses and communities in the City Region to respond to and recover from the COVID-19 pandemic.
- Through the Creative Informatics programme, launched, supported nine new Resident Entrepreneurs, and partnered with Marchmont House in the Scottish Borders to host the next round of the Scheme.
- Developed and delivered new Continuing Professional Development training in each key industry sector, focused on supporting businesses to understand how effective use of data can contribute to their recovery and sustainable development post-Covid.

QUOTE

Dr William Lamb, Dr Beatrice Alex, Dr Mark Sinclair – received DDI Beacon funding for their Gaelic speech recognition project which was delivered through the Edinburgh Futures Institute (EFI)

“The whole point of the EFI is to encourage interdisciplinary collaboration. And our project is very much an example of this.

There's no one fluent in Gaelic who is also an NLP [Natural Language Processing] expert. And there is no NLP expert available who is also sufficiently fluent in Gaelic. The key to this project was bringing together a team with a diverse range of skillsets

Museums and archives were closed over the pandemic and the only public exhibitions were digitalised exhibitions. Most Gaelic archives couldn't previously be digitalised, the software to do that didn't exist. But we have now developed that software and so Gaelic archives and expeditions can get digital footfall.

It's a way of helping their recovery from the pandemic now and also protecting against the effects of future pandemics too.

So when we saw the DDI Beacon open-call, we thought our aims would fit well with different aspects of that ethos.”

Next Milestones

Due Date	Milestone
Jul 2022	Pilot new postgraduate taught and undergraduate courses, using outputs to inform future development and delivery.
Jul 2022	Appoint Chancellor's Fellows posts and Post-Doctoral Research Assistants to develop strategic interdisciplinary research areas.
Jul 2022	Building on EFI Partnership Strategy, develop co-location proposition and secure partnership agreements in advance of EFI building opening in 2023.
Jul 2022	Continue production of data sets through the course of relevant EFI research and adoption projects.
Jul 2022	Continue to encourage entrepreneurship across the EFI student community, and particularly within the Finance, Technology and Policy Post Graduate Programme, working with Edinburgh Innovations to support start-up activity focused in key industry sectors.

Strategic Added Value

- During 2020/21 the UNICEF Data Collaborative for Children moved from its initial home in DataLab to EFI. We anticipate significant added value for both projects as we learn together from each other's work, and as EFI develops world-leading capacity – enhanced by recent

significant philanthropic gifts – in the responsible and effective use of data to improve children’s lives. any links with other CRD projects.

- EFI has worked closely with colleagues in the Bayes Institute on the Data Lab, developing demonstrator projects across the City Region and beyond to address the needs of its key industry sectors in the wake of the pandemic.
- New postgraduate provision in Sustainable Futures is in development. EFI’s integrated approach to co-design and co-creation across its teaching and research means working with local stakeholders to define the challenge and explore, and interrogate, potential solutions.

CASE STUDY 1: EFI DESIGN LAB – FUTURE OF THE HIGH STREET

As part of the Scottish Funding Council-funded response to COVID-19, EFI delivered a six-month project combining citizen engagement and co-design with urban data and research. Led by Jenny Elliot, chartered landscape architect, urban designer and smart places lead at EFI, the project’s aim was to better understand challenges and opportunities for the high street both prior to and in light of the pandemic.

The project began by gathering insights from high street stakeholders - residents, businesses, organisations - through a co-design process involving surveys, digital co-design workshops and youth activities. six ideas to tackle common high street challenges were developed in collaboration with local businesses and other stakeholders in Dalry, Edinburgh and Dalkeith, Midlothian. Two of these ‘high street tweaks’ were selected to be prototyped, piloted and evaluated during June. the ‘tweaks’ aimed to produce some immediate benefit for high street businesses and the high street more holistically as a place, whilst exploring potential for longer-term adaptation, resilience or improvement.

A variety of data collection methods were used to evaluate the prototypes against a framework agreed by the stakeholders in advance. Early results were positive: perceptions of local ‘place quality’ increased by almost a third at both locations.

Work will now continue with the local authority and a local development trust to take forward these changes on a permanent basis with a view to enhancing the local environment and helping businesses and communities to recover.

CASE STUDY 2: LAUNCH OF CENTRE FOR TECHNOMORAL FUTURES

The Centre will host leaders, creators and innovators from academia, technology, business and the third sector to discuss the possible futures we can build in Scotland and the world as we emerge from the most challenging years of the century.

The Centre was launched on Thursday 29 April 2021 with an evening of conversation about how technical and moral intelligence can be brought together to lead us out of crisis and into hope.

The event introduced the Centre’s first-year, interdisciplinary PhD students and shared the Centre’s mission to bridge the divide between technical expertise and moral wisdom.

At the event, a distinguished panel of industry practitioners and academics discussed whether the idea of ‘technomoral futures’ is an oxymoron? That is, do technology and morality necessarily take us on different paths? Or do they represent two keys to wise and sustainable futures that must be turned together?



**Centre for
Technomoral
Futures**

EDINBURGH INTERNATIONAL DATA FACILITY

Achieving the aims of the DDI programme requires a powerful, high-capacity and flexible data infrastructure capable of responsive and secure delivery of an expanding range of complex and bespoke data and analytical services. These activities also demand a level of service (e.g. resiliency to the loss of power, redundancy of equipment to mitigate the impact of sudden failures) that is not normally required for research computing applications and is not currently supported by existing facilities.



The [Edinburgh International Data Facility](#) (EIDF) consequently consists of four complementary components:

- EIDF computer room: a new high resiliency computer room at [the Edinburgh Parallel Computer Centre's](#) Advanced Computing Facility to complement the other three computer rooms that are focussed on supercomputing system provision for research users;
- Data and software infrastructure: the underlying private cloud computing and data infrastructure to support the DDI programme. As part of this component, both Open Source and paid-for advanced data analytics and other software infrastructure will be delivered;
- Internet of Things (IoT) infrastructure: a regional IoT network for the city region will be created. This part of EIDF is the responsibility of the University's Information Services Group; and
- Regional Data Haven: a regional data haven for local public data, sourced initially from City Region Deal partners, will be created to support a smart public data generation infrastructure.

Headline achievements in the past year

In summary, despite the ongoing impact of COVID-19, Phase 1 of EIDF is a reality, and the focus in 2021/22 will shift from infrastructure build to service delivery. Below is a list of the key aspects delivered during 2020/21.

- Launch of a beta service of the Scottish Medical Imaging Archive within the National Safe Haven (November 2020).
- Completion and handover of the new EIDF Computer Room ("CR4") (December 2020).
- Procurement and installation of the main Phase 1 IT Equipment (March 2021).
- Procurement and installation of Europe's first Cerebras CS-1 dedicated AI system (March 2021).
- Completion of software engineering for the EIDF Data Science Cloud service (June 2021).
- Completion of a number of activities under the IoT Programme including UoE building occupancy monitoring; and, engagement with East Lothian Council's Beach Tourist Car Parks.

Next Milestones

Due Date	Milestone
Oct 2021	<p>Data Science Cloud Service:</p> <p>The Data Science Cloud (DSC) will be the principal point for contact for EIDF users. The service will provide "virtual desktops," browser-based access to virtual machines (VMs) running on the EIDF cloud. These VMs will be provided pre-configured with data science tools, selectable by users at application time. Users will be able to install their own additional software as needed. DSC users will have private workspaces and visibility of the shared</p>

	analytics-ready data layer that will grow over time to form a rich data lake at the heart of EIDF.
Jan 2022	<p>High-performance Data Analytics Services:</p> <p>From their VM desktops DSC users will have access to high-performance versions of both R Studio and Jupyter Hub, for scaling out R and Python workloads. These services will offer flexible cluster-based scaling and more traditional high-performance computing on both the new HPE Superdome Flex systems and on EPCC's existing national high-performance computing services. Access to the Cerebras CS-1 will also be part of this suite of services.</p>
Apr 2022	<p>Private Safe Haven Services:</p> <p>Projects that require secure environments for work on sensitive data can benefit from EIDF's Project Private Zone (PPZ) service. A PPZ is an isolated project zone within the EIDF Safe Haven Services hosting environment dedicated to a single project. PPZs provide security controls which disallow data extraction by users, restrict network traffic and provide managed gateways for an information governance team, independent of the users, to authorize the movement of data into and out of the PPZ.</p>
Jul 2022	<p>Data Management Services:</p> <p>Previews of the long-term data hosting service, currently being developed in partnership with early adopters from Data Slipstream and the National Collection of Aerial Photography, will begin by Dec 2021. We will develop these early versions towards a full digital preservation service over the course of this year and beyond. Development of the EIDF Data Catalogue, prototyped in 20/21, will continue and extend. We anticipate that the EIDF catalogue will form the heart of a network of connected catalogues from different disciplines and for different organisations, requirements for which have emerged during the latter half of 20/21. These include catalogues for Public Health Scotland and the new Research Data Scotland initiative, for DataLoch and for the Scottish Medical Imaging Archive.</p>
Jul 2022	<p>Regional Data Haven:</p> <p>The Regional Data Haven is designed to support projects using regional data, including those from the City Region Deal Local Authority (LA) partners, and conversely projects from partner LAs needing access to broader-based datasets. It will be developed in close alignment with the Research Data Scotland initiative launched in 2021 and will build on the Safe Haven Services developed for EIDF over the last five years. In concrete terms, through 21/22 we will:</p> <ul style="list-style-type: none"> • initiate capacity-building pilot projects with City of Edinburgh and Fife Councils on data integration, leveraging the new EIDF infrastructure, general access, and Safe Haven services; • work with Local and Scottish Government within the envelope of Research Data Scotland to develop a programme of implementation for data access across the region; and, • build on the former activities to create an exemplar Regional Data Haven as a demonstration for DDI Local Authority partners of the art of the possible.
Jul 2022	<p>IoT Service:</p> <p>The EIDF IoT Service provides leading IoT facilities and technical expertise to the DDI hubs, academia, industry, commerce, and the public sector across the South East Scotland region. Through our broad range of activity, we support all the DDI programme TRADE goals. During 2021/2022 we plan to:</p>

	<ul style="list-style-type: none"> • start the rollout of the IoT in Schools Service to primary and secondary schools across the south east of Scotland, with an initial pilot to 20-40 schools; • start expanding the IoT Research & Innovation regional sensor across Edinburgh and South East Scotland region; • progress IoT Research & Innovation developments, phase 2, including planning migration to new EIDF Phase 1 infrastructure; • continue Data Town developments; • continue development of UoE smart campus, e.g. building occupancy monitoring and managing space utilisation; • leverage the IoT service to support the University's joining of the UK Collaboratorium for Research in Infrastructure and Cities.
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CASE STUDY – CEREBRAS SYSTEMS AI SUPERCOMPUTER SELECTED TO RAPIDLY ACCELERATE AI ACTIVITIES



[Cerebras Systems](#), the pioneer in high performance artificial intelligence (AI) compute has been selected to supply the Cerebras CS-1 for installation at the Edinburgh International Data Facility. This leading-edge AI deployment enables the next wave of natural language processing (NLP) and data science research for public, private and academic sectors across the City Region and the UK.

The system, the first CS-1 deployment in Europe, will provide unprecedented AI scalability and massive data handling capability, greatly reducing training time - the most time-intensive part of AI - enabling many more ideas to be tested. The system will be available for academic researchers and data scientists in the public and private sectors.

In AI compute, large chips process information more quickly, producing answers in less time. The CS-1 is built around the world's largest processor, the WSE, which is 56 times larger, has 54 times more cores, 450 times more on-chip memory, 5,788 times more memory bandwidth and 20,833 times more fabric bandwidth than the leading graphics processing unit (GPU) competitor. The CS-1 has won numerous awards including Fast Company's Best World Changing Ideas, IEEE Spectrum's Emerging Technology Awards, Forbes AI 50 2020, HPC's Readers' and Editors' Choice Awards and CBInsights AI 100 2020.

"We are excited to bring our industry-leading CS-1 AI supercomputer, coupled with HPE's advanced memory server, to EPCC and the European market to help solve some of today's most urgent problems. Our vision with the CS-1 was to reduce the cost of curiosity, and we look forward to the myriad experiments and world-changing solutions that will emerge from EPCC's regional data centre." Andrew Feldman, CEO and co-founder of Cerebras

NATIONAL ROBOTARIUM

The [National Robotarium](#) is a world-leading centre for Robotics and Artificial Intelligence. Its responsible and collaborative approach creates innovative solutions to global challenges. Its pioneering research moves rapidly from laboratory to market, developing highly skilled visionaries and delivering substantial benefits for society. Its ethos is People centred; Intelligence driven.



This research and development facility translates cutting-edge research into technologies to create disruptive innovation in an expanding global market in robotics and autonomous systems, delivering sustainable economic benefit to the city region, Scotland and the UK.

As global leaders in Robotics and Autonomous systems, Heriot-Watt University and the University of Edinburgh explore collaborative interaction between humans, robots and their environments at all levels. The National Robotarium will leverage existing research and the expertise of UK industry with the significant market opportunity of Robotics and autonomous systems. Building capacity across complementary areas of embedded intelligence and expert systems, the National Robotarium will link to other UK and international research locations to attract further inward investment.

The £22.4 million purpose-built centre, opening in early 2022, will have unrivalled facilities adding to our existing laboratories in Ocean Systems, Human Robotic Interaction and Assisted Living.

With a strong focus on entrepreneurship and job creation, the National Robotarium will offer an ecosystem for industry collaboration where humans and robots work in partnership.

Headline achievements in the past year

- Commencement of construction on the Heriot-Watt University Edinburgh Campus in January 2021.
- The [ORCA Hub](#), led by Heriot-Watt University and the University of Edinburgh, has secured £2.5 million of further funding from UK Research & Innovation (UKRI), supporting its work developing robots to make offshore infrastructure inspection and repair safer.
- Award of the £3.8 million [UKRI Trustworthy Autonomous Systems](#) (TAS) Node in Trust to drive forward cross-disciplinary fundamental research to create the autonomous systems of the future led by Prof. Helen Hastie.
- Prof. Subramanian Ramamoorthy appointed to lead the £3.2 million governance and regulation of TAS Node. The team is tasked with developing a novel framework for the certification, assurance and legality of TAS, addressing whether such systems can be used safely.
- Formation of Industrial Advisory Board with first meeting in June 2021. The board comprises seven industry leaders across a variety of sectors, chaired by Prof. Sir John McCanny.
- Launch of four-year Robotics programme in collaboration with Ocean University of China which will recruit up to 120 students annually.
- Launch of our Pilot Schools Programme with initial funding in place for first 3 years. This will involve the recruitment of two interns to support coding projects at High School and associated feeder primary schools using Sphero robots.

Next Milestones

Due Date	Milestone
September 2021	Appointment of National Robotarium CEO.
February 2022	Completion of construction on Heriot-Watt University Edinburgh Campus.

March 2022	National Robotarium fully operational.
April 2022	First National Robotarium Strategic Partners onboarded.

Strategic Added Value

The development of the National Robotarium is aligned with the strategic focus of both Universities and with the Data-driven innovation theme. The core strategic focus of Heriot-Watt University is:

Strengthen research intensity in fields of economic and societal benefit; Provide truly global education while maintaining our Scottish roots; and Deliver excellent student experience and highly employable graduates.

The National Robotarium is actively identifying opportunities with our colleagues across the DDI programme. These examples include:

- Collaborate with Bayes Centre to support activities in Robotics and Autonomous systems across UoE and HWU, driven by the academic expertise of the Edinburgh Centre for Robotics.
- Discussions underway around a partnership with Edinburgh Futures Institute to develop CPD and other talent offerings on ethics in robotics. The UKRI Trustworthy Robotics programme can be a foundation for collaboration.

During the procurement and completion of the National Robotarium main construction contract we focussed on the delivery of an ambitious Community Benefits plan with agreed KPIs on variety of areas including youth and school engagement, work placements and job creation within an inclusive growth approach.

Public Engagement is an integral part of our research practice at the National Robotarium. By actively embedding this into our work, we will enhance the skills and attitudes of all those taking part and ensure our research is socially conscious and relevant.

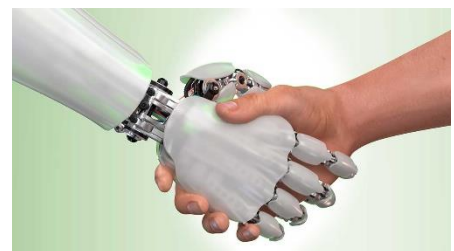
The vision is to create a sustainable programme of engagement focused on robotics and artificial intelligence, putting our audiences at the heart of our offering through increased public understanding and critical appreciation of robotics/AI. The National Robotarium will be fully engaged in policy making on robotics and AI, from ethics to standards and public understanding. Some highlights include:

- Launch of Pilot Schools programme involving senior School students (S4-6) working with Primaries (P5-7) in West Lothian. The ambition is for a sustainable programme with a focus on the challenges of gender balance in STEM subjects and engagement with SIMD20 areas.
- Engagement with over 40 schools in the city region area as part of our Name our Robot Dog competition.

CASE STUDY – TRUSTWORTHY AUTONOMOUS SYSTEMS

As artificial intelligence becomes more deeply integrated within various systems, enabling those systems to make their own decisions and act on their own, an inevitable question arises: can they be trusted

The UKRI Trustworthy Autonomous Systems (TAS) Node in Trust addresses this critical question and aims to drive forward cross-disciplinary fundamental research to create the autonomous systems of the future. The programme is led by Heriot-Watt's Professor Helen Hastie, joint academic lead of the National Robotarium and Director of the EPSRC Centre for Doctoral Training in Robotics and Autonomous Systems.



The challenge of managing trust between humans and autonomous systems is particularly difficult. TAS will spearhead research that examines how robotic and autonomous systems can be more transparent in their actions and thereby instil trust in their human users. It will develop world-leading best practice for the design, regulation and operation of trusted autonomous systems.

The UKRI Trustworthy Autonomous Systems (TAS) programme is funded through the UKRI Strategic Priorities Fund and delivered by the Engineering and Physical Sciences Research Council (EPSRC). The programme brings together the research communities and key stakeholders to drive forward cross-disciplinary fundamental research to ensure that autonomous systems are safe, reliable, resilient, ethical and trusted.

USHER INSTITUTE

The Health and Social Care Data-Driven Innovation (HSC DDI) vision is to create a world-leading innovation hub where public, private and third sectors can collaborate to enable data-driven advances in the delivery of health and social care.

The Usher Institute works with people and their data to understand and improve the health of individuals and populations in our community and beyond. We support the use of data and digital technologies to improve outcomes for patients, and encourage the adoption of those with the greatest potential to transform health and social care.



The programme will deliver the infrastructure, resources, and expertise essential for the data-driven transformation of the health & social care sector in the city region and nationally. It will embed innovation at the heart of Scotland's premier academic medicine campus with a new, bespoke home at [Edinburgh BioQuarter](#).

This will draw on Scotland's mature and world-leading health data assets, well-established governance, and data-sharing processes developed in partnership with NHS Scotland and the Scottish Government. The underpinning capability of the programme is the [DataLoch](#), with its repository of routine health and social care data for city region to help find solutions to current health and social care challenges.

Headline achievements in the past year

- Secured planning permission for the new Usher Institute and appointed main contractor, McLaughlin Harvey.
- Developed the trio of online Masters for launch in September 2021 - Data Science for Health and Social Care; Epidemiology; and, Integrated Global Health.
- Funded 50 bursaries for the initial run of the Health Data Science online credited PPD course, with a broad range of participants from across the HSC sector.
- Developed the Continuing Professional Development (CPD) strategy for the Health and Social Care sector, targeting interventions across students and health & social care professionals.
- Legal & General funded Advanced Care Research Centre launched. A £20m portfolio of activities over five years, which will address the models of care delivery.
- Designed the HSC DDI Innovation Ecosystem Delivery Framework with first identified exemplar priority (Frailty).
- DataLoch COVID-19 collaborative resource in partnership with NHS Lothian with 32 projects in process or completed.
- Alpha phase of DataLoch generated £150k of research from projects, including Scottish Funding Council COVID Beacon and the European Health Data Evidence Network (EHDEN).
- Established HSC DDI Entrepreneurship Group at UoE.
- Data-Driven Entrepreneurship Accelerator first cohort included six companies from the HSC sector.

QUOTE

Ruth McQuillan and UNCOVER (Usher Network for Covid-19 Evidence Reviews) – received DDI Beacon funding to employ students as interns and set up partnerships with Public Health Scotland

“We got funding from the DDI that enabled us to pay students- that was fantastic. In the early days of the pandemic students were working sometimes all night to get the evidence reviews turned around in time for policymakers to make the decisions they needed to. So we wanted to be able to pay people as an acknowledgement of their hard work.

Funding from the DDI has enabled us to take on two pieces of work for Public Health Scotland. We would really like to build long-term links with them so that we can have secondments for staff, internships for students and so that UNCOVER can make a good contribution to their work. So to get the funding to be able to set that up, that is excellent.

We are very grateful to the DDI because they saw the potential in what we do and then wherever they can, they have supported us. Finding an organisation, like the DDI, with a good vision is actually quite difficult – so their help and support has been pivotal.”

Next Milestones

Due Date	Milestone
Aug 2021	Beta launch of DataLoch, with its core health data repository.
Sep 2021	Launch of three new online Masters programmes in September 2021 – Data Science for Health & Social Care, Epidemiology, and Integrated Global Health.
Sep 2021	DDE AI Accelerator cohort 2 launch.
Sep 2021	Break ground on new Usher Institute building at Edinburgh BioQuarter.
Nov 2021	Second cohort of the Health Data Science online course and begin delivery of the wider HSC DDI CPD strategy.
Jan 2022	HSC DDI Innovation Ecosystem – Strategy Outline with initial exemplar focus on frailty.
Apr 2022	Extend regional data partnership and coverage to Fife and Scottish Borders and ingest and integrate social care data from Lothian HSCPs.
Jul 2022	HSC DDI Innovation Ecosystem – Strategy Launch and engagement events for University and external stakeholders.
Jul 2022	Design and begin delivery of a programme of DDI engagement events for University and external stakeholders, particularly NHS South East Region.
Jul 2022	Full DataLoch launch.

CASE STUDY – DELTA VARIANT IMPACT ON HOSPITALISATION REVEALED

The Delta variant of COVID-19 is associated with approximately double the risk of hospitalisation compared with the Alpha variant, according to a nationwide study led by Professor Aziz Sheikh of the University of Edinburgh.



Two vaccine doses still provide strong protection against the Delta variant – which was first identified in India – but it may be at a lower level compared with the Alpha variant, the early evidence suggests. Based on data analysed from 5.4 million people in Scotland, the Delta variant is now the dominant form of COVID-19 cases in the country, overtaking the Alpha variant, which was first identified in Kent.

Vaccines were found to reduce the risk of being admitted to hospital, but strong protective effects against the Delta variant were not seen until at least 28 days after the first vaccine dose. In community cases at least two weeks after the second dose, the Pfizer-BioNTech vaccine was found to provide 79 per cent protection against infection from the Delta variant, compared with 92 per cent against the Alpha variant.

For the same scenario, the Oxford-AstraZeneca vaccine offered 60 per cent protection against infection with the Delta variant compared with 73 per cent for the Alpha variant. This lower vaccine effect may reflect that it takes longer to develop immunity with Oxford-AstraZeneca, experts say.

The study was funded by the Medical Research Council, the National Institute for Health Research, UK Research and Innovation Industrial Strategy Challenge Fund and Health Data Research UK (HDR UK) and was supported by the Scottish Government. Additional support was provided through the Scottish Government Director-General Health and Social Care, and the UKRI COVID-19 National Core Studies Data and Connectivity programme led by HDR UK.

“These results provide early encouragement that two doses of either Pfizer-BioNTech or Oxford-AstraZeneca vaccines significantly reduce the risk of infection against both the Alpha or new Delta variants. They also show the vaccines offer protection against the risk of hospitalisation with the new Delta variant. Though no vaccine can be 100% protective, they provide the best protection against COVID-19 and it remains important to get both doses when offered.” Dr Jim McMenamin, COVID-19 National Incident Director for Public Health Scotland

EDINBURGH FOOD AND DRINK INNOVATION PARK

The Food and Drink Innovation Campus, known as [Edinburgh Innovation Park](#) (“EIP”) will be located at Craighall, by Musselburgh, East Lothian, on land next to the Queen Margaret University campus.



The EIP will deliver, as Phase 1, a flexible 7,200 sqm Gross Internal Area Innovation Hub for the food and drink sector in Scotland that will be directly adjacent to and supported by Queen Margaret University – a university that is leading on international research in Dietetics, Nutrition and Biological Sciences. The Innovation Hub will be the catalyst for subsequent phases of the wider EIP.

This state-of-the-art Innovation Hub will drive company growth, supporting and developing existing businesses and creating sustainable new businesses to access a global market for healthy and functional food. The development will allow Queen Margaret University, along with businesses, to form and grow a business sector that will harness the potential of translational medicine in food and drink. This will in turn support the diversification of the food and drink industry towards preventative, therapeutic and rehabilitative applications of expertise in genomics of food and drink sector.

The EIP is also part of a significant development of land adjacent to the Queen Margaret University campus which encompasses a new grade separated junction, 1,500 homes, a new primary school and community facilities. There will also be the creation of a commercial zone within the existing Queen Margaret University campus that will enhance the Queen Margaret University’s integration with the newly developed local and business community.

Headline Achievements

Date	Achievement
Feb 2021	Stage 1 Tender for Grade Separated Junction issued.
Jun 2021	Stage 2 Tender for Grade Separated Junction published.
Jun 2021	Approval of the Full Business Case.

QUOTE

James Withers, Chief Executive of Scotland Food and Drink

“Despite the challenges the industry has faced over the last year, Scotland’s food and drink sector has huge opportunities ahead of it, both in markets locally and globally. Pivotal to grasping these opportunities is innovation and increasing the collaborative working between Scotland’s universities, research base and our food and drink producers. The investment in the food and drink innovation hub is exactly the kind of catalyst to make that happen.”

Next Milestones

Date	Achievement
Nov 2021	Commencement of the Junction Works scheduled.
Aug/Sep 2022	Completion of the Junction Works scheduled.
Sep 2022	Commencement of construction of the Food and Drink Innovation Hub (subject to ongoing project review).

Strategic Added Value

- The Innovation Hub forms a key part of an ecosystem of Innovation themed projects promoted by the Edinburgh South East Scotland City Region Deal.
- The whole project will contribute to job density improvement for the wider city region by making available infrastructure/construction opportunities and employment opportunities within the Innovation Hub and the EIP.
- The Innovation Hub will generate job opportunities in the sector for those highly skilled graduates both through the innovation led growth of the businesses located there, and through providing access to the space, facilities and services for food and drink graduate start-up companies.
- Ongoing collaboration and partnership working between East Lothian Council and QMU.
- Community Benefits such as internships, work placements, apprenticeship opportunities
- The project will embrace environmental sustainability within its design and operation with a particular focus on carbon reduction.

FIFE INDUSTRIAL INVESTMENT INNOVATION

The Fife Industrial Innovation Investment (i3) Programme is a £50 million, ten-year programme delivered by Fife Council.

The investment will deliver new business premises and immediately available serviced land. The new business accommodation will be located within existing business clusters in mid and south Fife, adjacent to growth corridors (M90 and A92). It will facilitate more joint working between the region's universities and Fife businesses, drive productivity and deliver higher value, skilled, permanent jobs from data driven innovation.



Completed units at Flemington Road, Queensway Industrial Estate, Glenrothes

The new industrial and commercial stock will ensure that Fife's industrial estates provide flexible space for innovative manufacturing industries with cutting-edge digital and energy capabilities. Four sites will be developed in Glenrothes, Kirkcaldy, Lochgelly and Dunfermline during the first three years of the Programme. Around four hectares (ha.) of newly-serviced employment land will be available for private sector investment, along with almost 4,000 square metres of newly developed business space to let.

Headline achievements in the past year

- Completion of nine new business units at Flemington Road, Queensway Industrial Estate, Glenrothes (March 2021).
- Construction project underway at Dunnikier Business Park, Kirkcaldy (scheduled for completion in September 2021).
- Acquisition of Fife Interchange North, Dunfermline (March 2021) and site servicing works underway (June 2021).
- Construction Project underway at Hillend & Donibristle Industrial Estate, Dalgety Bay (August 2021) – scheduled for completion in September 2022.
- Early closure of Construction Project at The Avenue, Lochgelly, to take advantage of a private sector interest. This has been replaced with a larger-scale Site Servicing Project.

Next Milestones

Due Date	Milestone
Sep 2021	Completion of seven new business units at Dunnikier Business Park, Kirkcaldy.
Nov 2021	Circa 2 ha. of land serviced and immediately available at Fife Interchange North, Dunfermline.
Apr 2022	Implementation of Tranche 2 of the Fife i3 Programme commences.
May 2022	2 ha. of land serviced and immediately available at The Avenue, Lochgelly.
Sep 2022	Completion of eight new business units at Hillend & Donibristle Industrial Estate, Dalgety Bay.

Strategic Added Value

The Fife i3 Programme works closely with the Borders Innovation Park Project to share Lessons Learned and has also engaged with the DDI Programme around Innovation opportunities. It is envisaged that these linkages will continue to strengthen as the Programme moves from construction activities into support to tenants.

Fife Council's strategic inclusive growth priority is the Mid-Fife Area. All projects in the Fife i3 Programme are considered within the context of their contribution to inclusive growth and the locations for investment have been selected based on criteria that include:

- Ability to support strategic business clusters;
- Location / connectivity to strategic growth corridors (M90, A92);
- Fit with existing predominant land use;
- Potential impact on sensitive or incompatible land uses; and
- Potential to deliver lower-cost business space.

In addition, when the Programme was reviewed in preparation for Tranche 2, four additional criteria relating to sustainability and net zero were added to the site selection process:

- Greenfield – greenfield sites are generally not preferred unless they fulfil other sustainability criteria or make a significant contribution to other strategic objectives.
- Passivehaus – can the site accommodate a passivehaus design, particularly in relation to the orientation of the building to maximise passive solar gain?
- Renewables – does the site have access to any renewable energy source (e.g. district heat network, air source or solar power)?
- Vacant & Derelict Land – will the project remediate vacant and derelict land or property?

Work continues to develop and refine the Programme's approach to sustainable construction.

CASE STUDY – FOX INNOVATIONS

Fox Innovations is a new business venture for a local entrepreneur and chemist who has already demonstrated business acumen with the success of Little Fox Soapery, an artisan company offering a range of vegan, organic, palm free and cruelty free soap and personal care. The company is among the first tenants of the Fife i3 Programme. The newly constructed business unit has allowed them to maintain temperature stability, which has created a better manufacturing environment for their products. The company plans to recruit new staff as the business expands.



A Focus on Sustainability

COVID-19 has been the focus of 2020/21 but tackling the other crises facing the planet remains urgent: conserving natural resources, loss of biodiversity and social inequality. Fox Innovations recognise that long-term value creation will be driven at the intersection of innovation and sustainability. Sustainability makes good commercial sense: consumers want products sourced from natural ingredients which make a positive contribution to the environment and local economy and to buy goods and services from purpose-driven companies. The regulatory environment is also forcing businesses to be more sustainable to maintain compliance, which is further driving innovation.

Approach to Sustainable Innovation and New Product Formulation

Typical liquid cleaning products are made up of more than 90% water. Drying them out into a solid reduces their volume and weight, thus reducing the number of trucks, fuel and carbon emissions associated with shipping. It also eliminates the need for plastic packaging, meaning less disposable plastic ends up in our landfills and environment.

The company focuses on sustainability-based consumer demands that are driving industry innovations, such as clean beauty and high efficacy waterless formulations. It has formulated a range of home and personal care products that utilise green chemistry principles with biobased raw materials to replace current petrochemical derived, liquid solutions that are packaged in plastic. All Fox Innovation products are packaged in plastic-free compostable cardboard sleeves that double-up as a shipping envelope, further reducing waste.

Drop a tablet in warm water and leave it to dissolve or drop a compostable pod into water in a spray bottle to refill your cleaner without the waste. Or use a zero waste laundry strip – a lightweight pre-measured strip of detergent that you add to your wash, which quickly dissolves in water and can be used in any washing machine or hand wash and is equally effective in hot or cold water.

The Digital Opportunity

Digital tools offer speed, intelligence, connected supply chains and overall efficiency gains. Digital transformation offers unparalleled opportunities to support the increasing requirements for integrity in supply chains, the need for faster innovation, the continued drive to make more with less and the rapidly increasing expectations for sustainability reporting and disclosure. Consumers, too, empowered by digitalisation have changing expectations, greater choice than ever, and a desire to know more about the products they use. Fox Innovations have recently been awarded Digital Boost Funding, administered by Business Gateway Fife. Specialist equipment will support operational efficiency, sustainable procurement and facilitate transparency in the supply chain to enable third party certification.

“Being part of the Fife i3 Programme has allowed us to keep expanding the business, and we are so proud to be manufacturing from our base in Fife. The high specification of the new unit gives us much greater control over the ambient temperature – this is key to our manufacturing process. The result is that, from the same inputs, we now produce more useable product and less waste. We are committed to both innovation and sustainability and where these intersect is exactly where we want to position the business.” **Barbara Robertson, Fox Innovations**

BORDERS INNOVATION PARK

The Borders Innovation Park, situated next to the Borders Railway terminus at Tweedbank, will deliver much-needed high quality business space to the Scottish Borders. Costing £29 million, the programme will stimulate business growth and associated job creation.

It will enhance the area's inward investment offer, particularly to high-value sectors, as well as assisting existing businesses to improve their competitiveness. It will also help to address inequalities in the area through providing access to better quality, higher paid jobs.



Headline achievements in the past year

- **July 2020:** Start of construction of Phase 1.
- **Summer 2021:** Planning application for Phase 3 road infrastructure.
- **Summer 2021:** Publication of Scottish Borders DDI opportunities report.

Next Milestones

Due Date	Milestone
September 2021	Completion of construction of first office building, Phase 1.
October 2021	Official opening of first office building, Phase 1.
Autumn 2021	Submission of revised Full Business Case for Phases 2 and 3.

Strategic Added Value

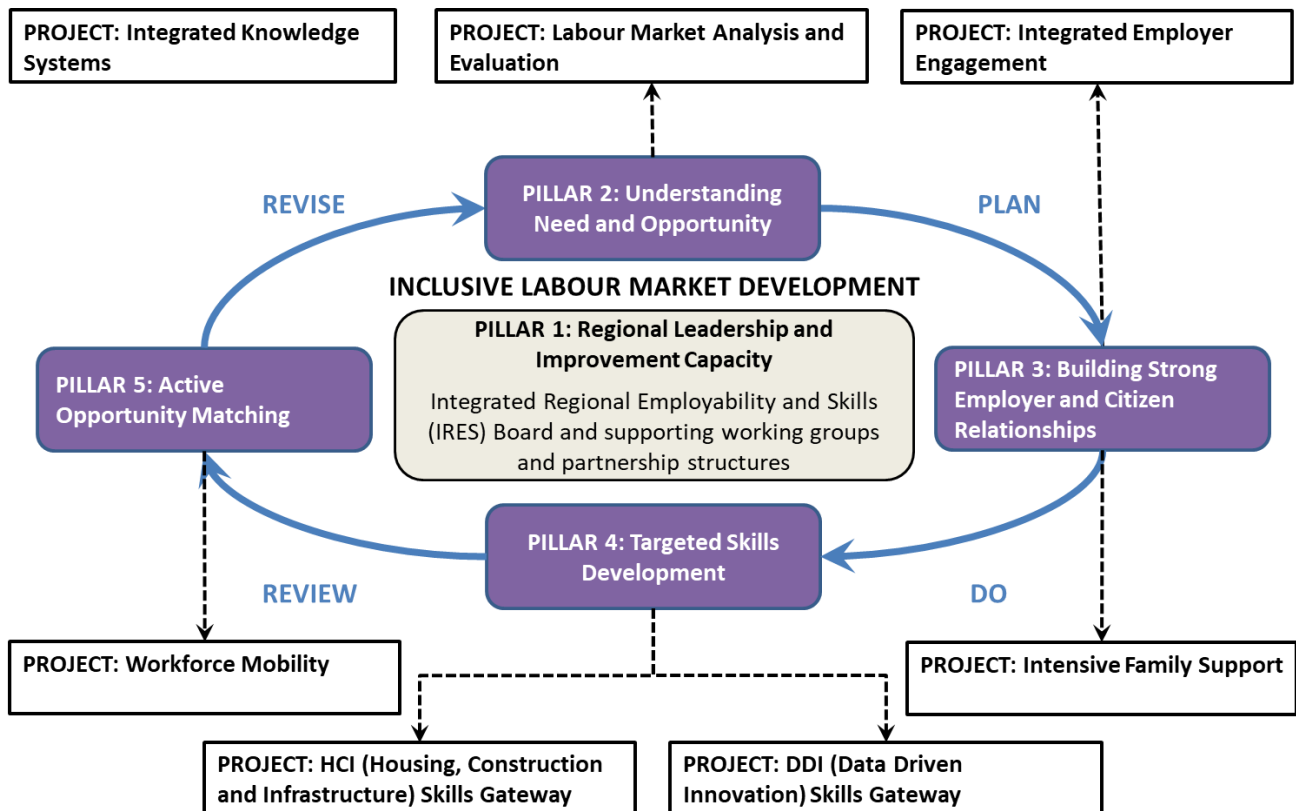
Scottish Borders Council is working with strategic partners, particularly Fife Council and the University of Edinburgh, to maximise the benefits of data-driven innovation and its potential to increase the number of innovation-active businesses, both regionally and locally. In the summer of 2021, a report on data-driven innovation opportunities in the Scottish Borders will be published. As a participant in the City Region Deal Housing, Construction and Infrastructure (HCI) Skills Gateway, the Council will look to develop new talent through utilising the construction opportunities during the build phases of the innovation park.

INTEGRATED REGIONAL EMPLOYABILITY AND SKILLS

The Integrated Regional Employability and Skills (IRES) Programme and its cross-sector partnership seeks to evolve regional labour market policy and practice to help drive inclusive growth.



As demonstrated in the figure below, the programme continues to focus on five improvement pillars with seven projects targeting known areas of weakness or opportunity. These activities and the £25 million (over eight years) change fund available to the partnership will deliver: an additional 14,700 skill improvements; 5,300 people into employment; and a further 500 career enhancements.



The IRES Programme continues to:

- Increase the visibility of opportunities and put in place tailored support to help citizens flourish with a focus on groups who are disproportionately affected by the downturn in the labour market due to COVID-19.
- Open up new and diverse talent pools to business that help address skills gaps and promote an inclusive approach to recruitment and workforce development.
- Evolve, streamline, and integrate the region’s employability and skills system to enhance our capacity and capability to drive inclusive growth and create added value for stakeholders.

In 2020/21 the IRES Programme revised delivery in response to COVID-19 by introducing several interventions across the IRES programme including the adaption of digital and online learning, employer engagement and funding to support job retention and adaption to flexible working. Face to face activities were postponed, and some were re-introduced when restrictions eased.

The IRES Board recognised that the scale of intervention planned through the IRES Programme was not adequate to mitigate the impact of COVID-19 alone, so the programme provided strategic direction and a governance framework for wider partnership work including investigation into a

potential Health & Social Care Skills Gateway. The impact of the pandemic has re-affirmed the rationale behind the programme and how important inclusive growth will be in supporting economic recovery.

Headline achievements in the past year

Integrated Employer Engagement (IEE)

- In response to COVID-19 and consultation with key partners, a small business grant programme was launched targeting micro businesses within the ESES community. This programme supported 77 business to adjust to new trading under government guidelines. A follow-up survey revealed that 103 individuals retained their employment due to this intervention.
- Since launching, the c19 jobs portal ([C19jobs.org](https://www.c19jobs.org)) has received over 26,000 unique visitors. 1600 employers have advertised over 3,800 vacancies within the ESES region. Over 400 job seekers have been referred for additional employability support.
- A Fife-based developer Horisk Leslie, was awarded the contract for the development of a Community Benefit Wishlist Portal due to launch by Q3 2021. The portal will provide a platform for local beneficiaries and suppliers to come together to deliver innovative community benefits across the region.

Workforce Mobility (WFM)

- Clarity on the key workforce mobility barriers across the region have been identified through various research methods including a survey which was undertaken to validate the anecdotal evidence.
- The Workforce Mobility Project successfully coordinated the regional response to the Scottish Government review of free bus travel for people aged under 25.
- Two partners were supported to prepare applications to the UK Community Renewal Fund for Demand Responsive Transport. One bid was submitted to UK Government for more than £1M, with the other bid not passing the internal gateway review. If approved in autumn 2021, the project will integrate with other partners including SEStran, allowing commercialisation of services or further bids for funding.

Integrated Knowledge Systems (IKS)

- Procurement of a software partner for the IKS project was awarded through Public Contract Scotland. Hanlon Software Solutions won the tender and have entered a two-year contract.
- Extensive investigate into the challenges of integrating data across different systems which has helped shape the IKS project plan.

Labour Market Analysis & Evaluation (LMAE)

- The [Edinburgh and South East Scotland Labour Market Toolkit](#) has been developed and delivered.
- Analysis into the cross-cutting skills required in the region's Health and Social Care, Financial services, and Construction sectors has been conducted.
- Support for the ESES Regional Intelligence Hub (RIH) concept has been generated, resulting in a pilot model being approved by the Directors' Group in June 2021.

Intensive Family Support Service (IFSS)

- The Intensive Family Support Service underwent a process of co-production across the region which informed the design of the service specifications for each local authority area. A competitive grants process was successfully carried out to appoint delivery partners. The service is now fully operational and is working with 62 families and 215 individuals across the city region.
- Despite the challenges of the pandemic, service delivery providers have successfully developed positive relationships with the families that they are working with, engaging creatively to provide crucial supports to families further disadvantaged by the pandemic. Caseworkers have delivered over 1176 service sessions, achieved 10 positive outcomes in employment, education and training for young people, and 2 positive outcomes in employment, education and training for adults. Financial gains of £7670 have been secured for the families engaged with the service.
- The IFSS Community of Practice (CoP) collaboratives have been key to facilitating the building of relationships with service delivery partners, including caseworkers, across the IFSS. Collaboratives are held monthly on a rotating basis and are grouped by specialism. They have provided the opportunity for the core team to get to know the managers and caseworkers across the IFSS as well as for them to build relationships, and share challenges, successes and learning across the IFSS with each other.

Data-Driven Innovation (DDI) Skills Gateway

- A series of Live Lessons were held open to school pupils across the region. Over 4,500 learners were engaged with.
- Data Skills Credit funding was distributed to over 80 individuals looking to upskill their data literacy.
- An extensive programme of CPD for College lecturers was run, sharing expertise across the region's colleges and universities.

QUOTE

Bageshri Hasabnis, Data Skills Gateway – part of the first cohort of students to complete the Professional Development Award in Data Science

“Due to relocating from India to the UK and having a baby, I took 15 years out from my data science career. But now my child has grown up and I have more time, I had already started thinking about my career because I was missing the data skills that I had learnt in university.

I'm passionate about programming and so this course was a great opportunity for me to improve my IT skills.

I had been out of the data science field for 15 years, so of course my knowledge was outdated. But doing this course makes you feel more confident and that is the most important thing because it re-ignites your interest, and you start to get that buzz back.

I previously never thought that data science could be a career option for me. But now I think – yes I can do this!”

Housing, Construction, and Infrastructure (HCI) Skills Gateway

- Over 370 learners in new short skills courses addressing regional key skills gaps, plus 21 postgraduate scholars were appointed at Edinburgh Napier and Heriot-Watt Universities (80% of whom are female).
- Three industry challenges have been delivered, engaging over 60 students from SE Scotland – Inter SGN (reimagining the use of legacy gas container sites) Offsite Ready (offsite construction for West Lothian’s Beecraigs country park) and the Icebox Challenge (Passivhaus principles for COP26).
- Over £59,000 has been leveraged in in-kind and cash support to the Timber Technology, Engineering & Design pathway, a new training process to accelerate sustainable timber construction careers.

Next Milestones

Due Date	Milestone
Programme Delivery	
On-going	Review intelligence from programme activity and labour market research to identify next step projects, service adjustments, or other changes.
On-going	Set out mainstreaming plan to sustain successful interventions, end redundant/ineffective activity, and create headroom for next step projects.
On-going	Monitor, review and where appropriate adapt project activity considering COVID-19 impact on current and future demands within the labour market.
Dec 2021	Review project outputs and the impact on jobs, ensuring that these contribute and align with overall City Region Deal Benefits Realisation Plan. Implement an appropriate system of definitions, capture, recording and aggregation.
Dec 2021	<u>Integrated Employer Engagement (IEE)</u> <ul style="list-style-type: none"> • Develop and launch Community Benefits Wishlist Portal (ESESCommunities.org). • Expand the employer led Recruitment and Skills Centres to support employers to establish training and skills academies linking to sustainable employment opportunities. • Launch an Employer Fund designed to support employers and their workforce once the furlough job retention scheme comes to an end.
Aug 2022	<u>Workforce Mobility (WFM)</u> <ul style="list-style-type: none"> • Pilot project using employee origin/destination data to design/optimize bus routes to service the user needs. • Explore solutions for other mobility barriers faced by users. • Provide input into policy creation, development, and delivery to ensure workforce mobility is addressed
Dec 2021	<u>Integrated Knowledge Systems (IKS)</u> <ul style="list-style-type: none"> • Implementation of the School Work Experience (City of Edinburgh Council) replacing existing system to improve alignment and reporting. • Replace existing MIS (Caselink) with the new Information Knowledge MIS including the migration of existing data. • Support IFSS and IEE with the transition from Caselink onto the new MIS including the migration of existing data.
Aug 2022	<u>Labour Market Analysis & Evaluation (LMAE)</u> <ul style="list-style-type: none"> • Monitor and evaluate engagement with the ESES Labour Market Intelligence toolkit and build in feedback to the resource.

	<ul style="list-style-type: none"> • Deliver on the ESES Climate Emergency and Green Skills research to support the development of the Regional Prosperity Framework. • Refresh the Labour Market Information 'Best Practice' Research considering COVID-19. • Progress on the Regional Intelligence Hub (RIH) to be reported to the Directors' Group in December 2021.
Aug 2022	<u>Intensive Family Support Service (IFSS)</u> <ul style="list-style-type: none"> • Continued research into organisational and social interactions within IFSS by Dr Sarah Galey-Horn, University of Edinburgh Research Fellow. A baseline will be developed and will act as a benchmark for future monitoring & evaluation. • Delivery partners will undertake Systemic Practice Training which promotes the belief that families and people have the capacity to change. This training will promote a consistency of approach across the service. • IFSS will undertake a performance review and embark on period of consultation with families engaged in the service. The programme will be reviewed and evaluated, and information collected will inform the next phase of delivery
Aug 2022	<u>Data-Driven Innovation Skills Gateway (DDI)</u> <ul style="list-style-type: none"> • Deliver a series of open seminars engaging teachers across the region. • Launch skills portal to signpost learners to data skills opportunities across the region. • Plan and deliver a "Day of Data" to align with DataFest and wider community engagement planned activity.
Aug 2022	<u>Housing, Construction, and Infrastructure (HCI)</u> <ul style="list-style-type: none"> • Engage over 200 young people across the region in designing their ideas for a sustainable human habitat to be displayed at the UN Climate Change Conference, COP26, in November 2021. • Appoint at least 15 postgraduate scholars from groups under-represented in construction – including women, BAME and people with disabilities. • To support over 500 people across the region to gain new and emerging construction industry skills.
Review and Deliver Next Step Change Projects	
On-going	Mainstream successful activity, end poorly performing interventions, and agree next step projects.
On-going	Review intelligence from programme activity and labour market research to identify next step projects, service adjustments, or other changes.
On-going	Review and Update Implementation Plan and other documents as required.
Reinforce, Embed, and Further Develop	
Dec 2021	Embed new system components, monitor, and adjust.
On-going	Review intelligence from programme activity and labour market research to identify next step projects, service adjustments, or other changes.
On-going	Review and Update Implementation Plan and other documents as required.

Strategic Added Value

Inclusive growth remains at the centre of the IRES Programme with the aim of supporting long term sustainable destinations for those who live and work within the ESES region. By supporting local and regional ambition the IRES project has contributed to national policy to help shape future investment for the region.

As the partnership supporting IRES develops, further opportunities for wider alignment have developed:

- **Formation of the Regional Intelligence Hub (RIH)** – The objective of this group is to enhance information sharing, encourage collective knowledge and inform future skills investments and development.
- **Launch of the Data Intelligence Group (DIG)** – Aiming to share data and intelligence activity broadly related to the ESES City Region Deal; with a goal of identifying opportunities and integration, while reducing duplication. The group has a Data Governance remit to increase the efficiency of data related activity.
- **Business case being developed to introduce a Health and Social Care Gateway.** This aims to promote access to jobs in a key industry sector that have identified significant skills shortages and labour demands, which have been further exacerbated by the impact of COVID-19.
- **Approval of the ESES Task and Action Group pilot.** This pilot is funded to produce an insight into Climate Emergency and Green Skills. The research will also review the region’s existing green skills provision and identify potential challenges and equalities implications that the transition to net-zero may have on the labour market.

CASE STUDIES

1) INTENSIVE FAMILY SUPPORT SERVICE - MAKING IT WORK FOR FAMILIES. FIFE GINGERBREAD, CLUED UP, CARF AND FIRST

A lone parent family were referred to Making it Work for Families from the local high school. There were concerns about the young person’s attainment and attendance at school, as well as the parent’s mental health.

The Family Support Worker engaged with the family and found that strained relationships were impacting the family. The parent identified that they would like this to improve.

It was found that the family were also struggling financially. The Financial Inclusion Worker completed a benefit check and as a result, the household are now better off by over £200 per week.

The young person engaged with the project’s Youth Worker and identified areas of support, including mental health and social isolation. The Youth Worker implemented a gradual exposure model to support the young person back into education, where they have achieved an increase in both attainment and attendance.

The family continue to engage with the supports in place, both as individuals and as a family unit. The Family Learning Worker has begun working with the family to support the development of positive relationships within the household, while the team will continue to work with the family towards their individual goals.

2) INTEGRATED EMPLOYER ENGAGEMENT – EMPLOYER FUND

In response to COVID-19 and consultation with key partners a small business grant programme was launched in October 2020 targeting micro businesses within the ESES community.

This programme supported 77 business to adjust to new trading under government guidelines. A follow up survey revealed that 103 individuals retained their employment due to this intervention.

This [short video](#) showcases three businesses who were awarded funding through this grant programme and what impact this had on their businesses.

3) DATA-DRIVEN INNOVATION SKILLS GATEWAY – DATA SKILLS FOR WORK

When Esther Weil first started looking for a job, she found her data skills were lacking:

“I had basic programming skills” but not for “the specific programmes and languages” that she had seen referenced in many job advertisements.

Esther turned to the Data Skills for Work programme, which aims to upskill adults with data using initiatives like the Data Skills Credits scheme, with adults who are unemployed or underemployed granted £500 towards the cost of data centric courses.

Having seen SQL – a tool for data analysis - referenced in job advertisements, Esther took an SQL course with CodeClan using the scheme, simultaneously learning new skills and boosting her confidence.

Esther was required to use the SQL programme within a few weeks of starting her new job, which she began shortly after finishing the SQL course. Buoyed by her success in applying the skills she learnt on the course to her new job, she plans on taking more data classes online:

“As digitalization continues to change the job market severely it is important to stay ahead of the curve...data science and skills in data [are] an essential part of expertise in the future job market.”

“I can absolutely recommend the programme and encourage everyone to apply for this up-skilling opportunity”.

TRANSPORT

WEST EDINBURGH

West Edinburgh is recognised by the Scottish Government as a key national economic asset and perhaps the most important gateway to Scotland. [National Planning Policy](#) (NFP3) set the long-term vision for development and investment across Scotland and cites West Edinburgh as a significant business investment location with potential to be internationally competitive. In recognition of its key gateway function Edinburgh Airport and adjoining land is identified as a national development.

The vision for West Edinburgh, can only be delivered through the investment in a strategic package of transportation improvements. These include a core package of A8/A89 sustainable transportation measures that provide long term resilience and support strong connectivity between neighbouring authorities. Most importantly this will help enable the supply of labour from the surrounding area to meet the growing labour market demand required to realise the full potential for West Edinburgh.

The Scottish Government has committed £20 million for investment to support public transport infrastructure improvements identified by the [West Edinburgh Transport Appraisal](#) (WETA), and the City of Edinburgh Council has committed £16 million. Partners recognise that the WETA package currently amounts to £108 million of infrastructure. The scope of WETA will therefore be prioritised in line with this funding, and in consideration of how much funding can be secured by the private sector and developer contributions.

Headline achievements in the past year

December 2020: Procurement of Design and Delivery consultants and advisors.

March 2021: Strategic Case document and objectives refresh now complete.

April 2021: In recognition of Climate Emergency, an application was made to the Scottish Governments Bus Partnership Fund to augment core WETA packages with deliver more ambitious measures.

Next Milestones

October 2021: Outline Business Case (OBC) Options Analysis.

January 2022: Production of an Outline Business Case (OBC) for the programme following latest HM Treasury Green Book and Scottish Transport Appraisal Guidance.

April 2023: Detailed design of projects, site investigations, attainment of necessary statutory powers in order to implement improvements. Procurement of Contractors.

Q2 2023: Construction of Transport Improvement Projects commences (and ends 2025).

Strategic Added Value

The purpose of the West Edinburgh Transport Improvement Programme is to progress the delivery of the public transport and active travel measures identified in the 2016 WETA Refresh study including the assessment of the feasibility and demand for a new Park & Ride site at Kilpunt, on the A89 near Broxburn. A parallel exercise is also exploring the potential benefits of a number of more ambitious bus priority and active travel measures to those originally proposed in WETA. These would help support the emerging transport requirements from Edinburgh's City Plan 2030 and wider regional growth ambitions.

Interventions are being appraised against a wide range of objectives including, but not limited to, the promotion of sustainable travel to a range of destinations; improving regional connectivity and accessibility for all to jobs, education, healthcare and leisure; and delivering a combined active travel and public transport mode share of 50% within West Edinburgh to support net zero carbon emission targets.

The Programme brings together a range of stakeholders contributing to successful delivery. These include the City of Edinburgh Council, West Lothian Council, Bus Operators, Transport Scotland, Active Travel Groups, Bus User Forums, SEStran, Sustrans, Network Rail, Edinburgh Airport, Major Developers and other statutory consultees.

This project will eventually be procured as a construction project, and links with the Housing and Construction Infrastructure Skills Gateway will be established. The improvement of public transport provision in this area has the potential to unlock housing development opportunities and ease congestion in the corridor between West Lothian and Edinburgh.

A720 (SHERIFFHALL ROUNDABOUT)

The Sheriffhall Roundabout is currently the only junction on the A720 Edinburgh City Bypass that is not grade separated, which means the City Bypass is at the same level as the A7 and A6106 local approach roads. This at-grade, six-way junction, often experiences significant queuing, especially during peak hours. The Scottish Government’s commitment through the Edinburgh and South East Scotland City Region Deal includes up to £120 million to support improvements to the A720 Edinburgh City Bypass for the grade separation of Sheriffhall Roundabout. The project is being delivered by Transport Scotland and is subject to Transport Scotland’s normal governance procedures.



Visualisation of the proposed Scheme looking from the South-West



Visualisations of the non-motorised user facilities included in the proposed Scheme

Headline achievements in the past year

- A review of public transport and active travel facilities was undertaken on whether it is feasible and desirable to further improve active travel and public transport provision whilst not creating additional impacts for local landowners, residents and business. The review is now complete and indicates that the scheme, as promoted, already provides high quality active travel facilities and offers significant local bus journey time savings of up to seven minutes.
- Continued engagement with the City Region Deal partners, on progress and technical scheme developments.
- Continue to review and respond to representations made to the draft Orders and Environmental Statement and engage with objectors to resolve concerns where possible.

Next Milestones

Due Date	Milestone
Later in 2021	Respond to representations made to the draft Orders and Environmental Statement and engage with objectors to resolve concerns where possible.

	Should objections remain a Public Local Inquiry may be required which is the appropriate forum for considering objections received and not withdrawn. Progress on the delivery of the scheme itself can only commence when the scheme is approved under the statutory procedures and thereafter a timetable for construction can be determined.
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Strategic Added Value

The project will:

- Address the bottleneck on the strategic road network by improving operating conditions and connectivity at Sheriffhall and help to reduce the traffic impact of proposed developments in the area.
- Provide high quality active travel facilities to deliver a step change in accessibility for walking and cycling.
- Support future development in the region, including the South East Wedge development, inclusive growth and the removal of physical barriers to growth through delivery of programme of construction across the region.
- Contribute towards the requirement to provide Community Benefits in line with the requirements of the Procurement Reform (Scotland) Act 2014.
- Support wider skills development in the construction sector.

CULTURE

DUNARD CENTRE

The Dunard Centre, supported by Royal Bank of Scotland, will be Edinburgh's first purpose-built music and performance venue in over 100 years. One of the boldest ventures in the city's recent past, it will rival the best in the world in acoustical quality and audience experience. At its heart will be an auditorium offering the flexibility for all kinds of acoustic and amplified music and performance. Education and community outreach will be central to the vision, creating an informal cultural hub and contributing to the conditions needed for culture to thrive in the region and throughout Scotland.

IMPACT Scotland is the charity taking the project forward and is being supported by unprecedented levels of private philanthropy, including exceptional support from Dunard Fund, a long-term funder of the arts and music in Scotland.

The venue will be the new home of the Scottish Chamber Orchestra and a principal venue for the Edinburgh International Festival. Both organisations will support and contribute to the year-round education and outreach programme, and through further partnerships, opportunities will be developed to enable people to enjoy culture throughout their lives as both participants and audiences.

The current design will be considered for planning approval in autumn 2021.

Headline achievements in the past year

- Building redesigned to maintain 1000 capacity auditorium offering the flexibility for all kinds of acoustic and amplified music and performance, whilst achieving the required reduction in building size

Next Milestones

Due Date	Milestone
Autumn 2021	City of Edinburgh Council planning approval
Spring 2022	Joint Committee approval of business case
Summer 2022	Construction begins

Strategic Added Value

Opportunities are currently being explored to identify potential future **links with data driven innovation** and the extensive use of new technology in the Dunard Centre. With education and outreach central to its operation, potential links to the CRD skills theme will also be explored to identify where the themes of skills and culture can be brought together to create innovative new opportunities.

Partnership working is core to the project, and currently brings together a number of Scotland's leading arts, culture and finance organisations. There is considerable potential to expand these opportunities in numerous sectors and throughout the region. As outlined in the business case, more partnerships will be created as the project moves towards its operational phase.

Considerable investment through the construction period will **create jobs** and contribute to the economic growth of the region at a particularly pertinent time, as we build back from the pandemic.



Once operational, a range of high-quality employment opportunities will be supported directly and indirectly by the venue.

The Dunard Centre has been designed for a **low carbon future** with sustainability through reduction of the use of fossil fuel and embodied carbon as key design principals. The building has been designed with passive design principals embedded through enhanced building thermal performance and low building air tightness. The buildings heating and cooling source is a high efficiency revisable heat pump solution using electricity which achieves compliance with Section 6 of the Technical Standards with a Silver Active sustainability certification achieved. Embodied carbon is also a key consideration an analysis of embodied carbon has been undertaken through the design process to track performance and ensure that the material choices consider the carbon impact within the decision-making process.

REGIONAL HOUSING PROGRAMME

The [Regional Housing Programme](#), aims to accelerate the delivery of affordable housing and housing across all tenures, enable the development of seven major strategic housing sites and drive efficiencies across the public sector estate. It has two strategic objectives were identified for the Regional Housing Programme:

- To deliver a step change in innovation and inclusive growth in the housing and construction sectors; and
- To deliver a step change in the supply of new homes across the South East of Scotland.



Regional partners collaborate, share best practices and lessons learned on strategic sites, infrastructure, affordable housing delivery, innovation and skills.

The pandemic has impacted the regional housing programme with construction sites closed for several months and safe working practices changing how we will take forward new housing developments now and in the future. Moving forwards there are significant challenges facing the housing and construction sectors with significant shortages of both materials and skilled labour reported across Scotland and wider UK. These challenges emphasise the importance of a strong regional housing partnership and programme. It also highlights the need for close collaboration with Government to explore future innovative approaches and delivery models for affordable housing. Despite these challenges the region has been able to demonstrate strong delivery of affordable housing as set out below.

The business case for the Dunfermline Strategic Site was developed by Fife Council in collaboration with Scottish Government and Scottish Futures Trust. The case for strategic transport infrastructure interventions to unlock housing delivery was approved at the [4 June 2021 Joint Committee meeting](#).

The outline business case for Edinburgh's Waterfront is well underway and is due for completion later this year. Cases for Blindwells and Tweedbank are at an earlier stage and will follow. Calderwood, Shawfair and Winchburgh sites are in ongoing delivery phases.

[Edinburgh Living](#) (housing company for mid-market rent owned by the City of Edinburgh Council in partnership with Scottish Futures Trust) has been operational for two years. All £16.1m in available Scottish Government grant funding, committed as part of the City Region Deal, has been claimed during the construction of homes. 299 homes have been completed to date with over 100 more due to be completed this year. Lessons learned and best practice continues to be shared with regional partners and work will continue to consider future housing delivery models.

Partners continue to collaborate on the regional affordable housing programme, where possible identifying opportunities to innovate, secure greater certainty and long-term commitment over future investment to accelerate delivery of affordable housing.

Headline achievements in the past year

- Dunfermline Business case approved at 4 June Joint Committee.
- Edinburgh Living reached 250 homes milestone.
- Despite the impact of COVID-19 in the last year, the collective Strategic Housing Investment Plans across the region delivered over 1,500 completions with nearly 2,200 site starts and a spend of £139 million.
- Establishment of a strategic site leads group to share lessons learned and best practice on developing business cases, financial innovation and delivery of homes.
- Collaboration with Scottish Enterprise to develop an economic impact assessment of the seven strategic sites.

- Housing Need and Demand Assessment (HNDA) 3 project, which seeks to quantify the current and projected housing needs of the city region including in relation to requirements for different tenures and specialist needs, is progressing well towards 2022 completion.
- [Edinburgh Homes Demonstrator](#) project is progressing well with a site identified for first project. The project will deliver a new business model for affordable housing that is key to the transformation of delivery (including collaborative procurement, design standardisation, whole life costs and net zero carbon performance) and moving towards the mainstreaming of modern methods of construction that can be deployed across the region.

Next Milestones

Due Date	Milestone
Autumn/Winter	<p>Granton Waterfront OBC complete. The plan is to deliver:</p> <ul style="list-style-type: none"> • around 3,500 new net zero carbon homes; • business start- up space and commercial opportunities; • Europe’s largest coastal park through creating new and enhanced green spaces; • creative arts, culture and leisure space; and • key services including a school and health centre.
Ongoing	<p>Edinburgh Living: Final draw down of Scottish Government funding in 20/21 has happened.</p> <ul style="list-style-type: none"> • Target of 1,500 homes by 2023. • Ongoing delivery. 400 homes have either been constructed or are under construction. • The Edinburgh Living Team continues to collaborate with regional partners and share best practice. Work will continue to consider future housing delivery models.
2021/2022 financial year	<p>Regional Affordable Housing Programme. Looking forward for the year ahead, the estimated number of completions is over 2,340 homes with an estimated 4,600 approvals. An estimated £234 million will be required to deliver this pipeline of affordable housing (pre-COVID-19 estimates).</p> <p>Regional partners are aiming to maximise number of new homes that can be approved for site start as well as working with Registered Social Landlords and contractors to deliver homes already approved or on site. Updated Local partner Strategic Housing Investment Plans to be submitted to Scottish Government in October/November 2021.</p>
October 2021	<p>Housing Need and Demand Assessment submission to Scottish Government</p>
Investment Working Group	<p>Working group to be established with Scottish Government to explore opportunities to secure more funding and long term certainty for delivery of new affordable homes.</p>

Strategic Added Value

Housing is a key **social, economic and environmental driver**. Greater integration across these drivers and City Region Deal policy themes is essential to support the growth requirements of the region and to deliver new communities which deliver the quality of place that ensures the South East of Scotland is a desirable place for people to live and for businesses to invest.

Regional housing partners have developed a work programme that has synergies between work being developed through thematic areas of the Deal: IRES Programme; Transport Appraisal Board (TAB); Innovation; and the emerging Regional Prosperity Framework. Linking construction programmes, contractors and developers to Housing Construction and Infrastructure (HCI) Skills Gateway programme. Ensuring that regional skills shortages are tackled, and employment opportunities are directed to communities within the city region and that individuals facing disadvantages in the labour market are targeted.

The [Edinburgh Home Demonstrator Project](#) – work continues with partners through the project to develop a new business model for the design and construction of affordable homes and mainstreaming modern methods of construction. The three key phases of the project are as follows:

- Phase 1 - South East Region Demand Analysis - Understanding demand to inform scalable solutions.
- Phase 2 - Net Zero Housing Digital Briefing & Design Catalogue - Assess common design approaches and then support how we define demand through the development of digital tools and component library that will support a net zero and inclusive economic growth.
- Phase 3 - Collaborative Procurement Model - Develop strategy and approach in how we deliver sustainable and collaborative procurement to support scaling of modern methods of construction.

CASE STUDY – EDINBURGH LIVING

More than 250 families have moved into quality affordable homes thanks to an initiative developed by the **City of Edinburgh Council's** mid-market rent partnership and **Scottish Futures Trust**.

The Council and Scottish Futures Trust have strong ambitions to continue to grow Edinburgh Living, with an acquisition target of 500 homes by the end of 2022, and the long-term aim to provide 1,500 new mid-market rent and market rent homes over the next few years. The council is proactively identifying more homes to achieve this ambition, delivering well-built, well-managed and energy efficient new homes through its own housebuilding programme.



CASE STUDY - DUNFERMLINE

The business case to part fund the Dunfermline Strategic Transportation Intervention Measures was [approved by the City Region Deal Joint Committee on 4 June 2021](#).

The expansion of Dunfermline represents one of the largest areas of strategic growth in Scotland, at a scale not seen out with Scotland's largest cities for a number of years.

Through the Housing Infrastructure Fund, £16.538 million City Region Deal grant funding will provide a means to unlock and accelerate investment in essential new strategic transportation infrastructure. This will facilitate large-scale mixed-use development and investment in Dunfermline and wider Edinburgh and South East Scotland city region economy, including unlocking up to 2,000 affordable and 6,000 private homes. This will assist Fife's and the wider region's post-COVID economic recovery by accelerating inclusive growth and creating new economic opportunities and jobs that will help to reduce inequalities in the Dunfermline area and beyond. Unlocking this strategic housing development, by removing barriers to physical growth, will help deliver Fife Council's ambitious affordable housing programme and support the Scottish Government's Housing to 2040 vision.

Effective joint working and a strong commitment to find a workable funding solution between Scottish Government, Scottish Futures Trust and Fife Council officials was key in the preparation and development of the business case. The Dunfermline experience, along with the recently shared lessons learned, will assist regional partners in the preparation of the remaining business cases for strategic housing sites under the Regional Housing Programme.

BENEFITS OF CITY DEAL FUNDING

£16.5m of Housing Infrastructure Fund grant will unlock:

40-year strategic urban expansion of Dunfermline

HOUSING - enable the delivery of :

Up to 2,000 affordable houses

Up to 6,000 private houses



TRANSPORTATION

Strategic & local road improvements

New footpath and active travel links

Create access for new public transport facilities

£67.9m developer contributions for off-site transportation infrastructure

c.£150m developer delivered on-site transportation infrastructure

Statutory closure of Kingseat Road level crossing



EMPLOYMENT LAND

Delivery of up to 80 ha employment land

1,000 construction jobs per annum across the construction phase

Approx 1,000 permanent/ recurring jobs by year 30 on the employment allocation *



SUSTAINABLE PLACE MAKING

Promotes quality of place

Applies infrastructure first principle

Access to new education provision - 5 new primary schools and additional secondary school capacity.

Access to new community facilities

Contributes to Fife's and the City Region's post-COVID recovery



* Footnote: Based on 25% take-up of employment land

5. REGIONAL PROSPERITY FRAMEWORK

The City Region Deal partners are developing an economic framework called the ‘Regional Prosperity Framework’ (RPF) to set an ambitious 20-year vision for our regional economy to 2041.

This work builds on the successes of the Deal, strength of partnership as well as the need to respond and recover from COVID-19 and its economic and social impact, and to address wider societal imbalances across the region within a net zero context.

Prosperity is a word that Regional Partners feel reflects our ambition for a future that works for everyone: economic growth must not be at the expense of our planet, it must not exploit or marginalise people, and it must be shared more equally across our places and communities. The focus on a ‘prosperous’ region is therefore one that underpins the Framework.

The emerging vision for the South East Scotland Economy - *We will drive the economic recovery of Scotland whilst ensuring the proceeds of innovation and prosperity are fairly and sustainably distributed across all sections of the community to tackle inequalities.*

We will protect our environment and make best use of our assets to ensure that the Edinburgh and South East Scotland City Region delivers for all its citizens as we transition to a zero-carbon economy. Our institutions, ancient and modern, will deliver benefit for all.

Regional partners have identified 3 core themes – flourishing, resilient and innovative:

- **Flourishing** - A fairer distribution of wealth, affordable access to housing and a just transition to net zero emissions.
- **Resilient** – innovative physical and digital infrastructure that is multi-functional and climate ready.
- **Innovative** – a digital region that works for everyone, where data-driven approaches drive decision-making across all sectors.

Partners also want to create a better, more sustainable connected region underpins its future success. We will promote future growth along key growth corridors extending from the regional core.

A series of ‘big moves’ have been identified which with the right commitment, partnership and investment can start to deliver the ambitions outlined. The first ten of these are:

1. The Data Capital of Europe
2. Re-building neighbourhoods, towns and cities
3. Sustainable transport and mobility
4. Regenerating the Forth estuary
5. Re-imagining sustainable tourism
6. Re-building support for green business
7. Re-designing the new skills system
8. Re-inventing healthcare
9. Collaborative response to climate change
10. Reaffirming the role of our anchor institutions

The RPF will have a delivery focus and will utilise the existing strong regional governance established by the City Region Deal. Focus will centre on:

- **New Ways of Working** - the UK Government, Scottish Government and Regional Partners in south east Scotland are to explore how to improve alignment of their plans, strategies, investment and funding priorities.
- **Big Moves and Pipeline Projects** – an initial pipeline of projects which can commence over the short to medium term (1-6 years) with the right investment and partnership approach are identified.

- **Action Planning** - an action plan will be prepared and regularly updated to ensure deliverables are live and to ensure we can respond to future economic, societal and environmental factors.

At the time of writing a [draft RPE](#) has just undergone a period of public consultation with all comments and feedback now being considered ahead of a finalised version being prepared for the 3 September 2021 City Region Deal Joint Committee meeting.

6 THE YEAR AHEAD

Date	Milestone
Sep 21	Joint Committee meeting where the following items will be considered: <ul style="list-style-type: none"> • Transport Appraisal Board Consideration of A720 Sheriffhall Technical Information • Edinburgh and South East Scotland City Region Deal Bus Partnership Fund Award: Funding Announcement and Next Steps • Regional Prosperity Framework – final report • Edinburgh and South East Scotland City Region Deal Annual Report
Oct 21	Official opening of first office building at Borders Innovation Park (Phase 1).
Nov 21	Commencement of junction works at Queen Margaret University for Food and Drink Innovation Hub.
Nov 21	Engage over 200 young people across the region in designing their ideas for a sustainable human habitat to be displayed at the UN Climate Change Conference, COP26 .
Dec 21	Joint Committee meeting where the following items will be considered: <ul style="list-style-type: none"> • A720 (Sheriffhall roundabout) progress update • Submission of revised Full Business Case for Phases 2 and 3 of Borders Innovation Park • Integrated Regional Employability and Skills Programme progress update
Dec 21	Launch of Community Benefits Wishlist Portal (ESESCommunities.org).
Dec 21	Granton Waterfront Housing Business Case complete.
Mar 22	Joint Committee meeting where the following items will be considered: <ul style="list-style-type: none"> • Dunard Centre Revised Business Case • West Edinburgh Transport Improvement Plan Business Case
Mar 22	National Robotarium fully operational.
Apr 22	Implementation of Tranche 2 of the Fife i3 Programme commences.
Jun 22	Joint Committee meeting where the following items will be considered: <ul style="list-style-type: none"> • A720 (Sheriffhall roundabout) progress update
Jul 22	Full DataLoch launch.
Jul 22	Regional Data Haven launch.
Aug 22	Launch skills portal to signpost learners to data skills opportunities across the region

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FURTHER INFORMATION

- Keep up to date with the latest news and join the mailing list at www.esescityregiondeal.org.uk
- [Data-Driven Innovation website](#)
- Download all Joint Committee reports including approved business cases at [The City of Edinburgh Council Committee library](#) website.
- Visit the [webcast library](#) to view recordings of each Joint Committee meeting.