Dorset LEP - Outline Business Case (Lite)

The outline business case should be completed by 'public sector' organisation seeking to be considered for funding by Dorset Local Enterprise Partnership (DLEP) as part of the Dorset Pipeline Projects.

Things to consider before submitting your outline business case

It is recommended that you go through the following checklist. If you can answer **'yes'** to the following statements, then this might be right for your project. Please note that entering 'no' does not mean that your outline business case will be unsuccessful. If you are unable to answer some of the questions or if you are unsure whether the project fits the scheme, please contact us as we can guide you through the application process or, alternatively, advise you on any other funding schemes available that may be right for your scheme. Please contact a member of the project management team (see the section below).

PROJECT STATUS	Yes ✔	No ✘
My project requires capital funding	✔	
I have an agreed design (if applicable) and detailed cost breakdown for my project	✔	
The relevant legal and planning consents (if applicable) are in place or are expected imminently	✔	
I can deliver my project by 31st March 2021	✔	
The project is delivered within the Dorset County area	✔	
I have not bid to Dorset LEP before with this project	✔	
This project has local match funding	✔	
This project is related to a currently funded / ongoing Dorset Growth Deal project	✔	
This project is linked to the Industrial Strategy	✔	
This project is linked to the Dorset LEP Strategic Economic Plan / Vision	✔	

Submission of the Outline Business Case form

- The forms must be submitted to Dorset LEP Programme Manager, Daniela Doncakova ddoncakova@bournemouth.ac.uk and Dorset LEP Project Management Officer, Corey Kemp ckemp1@bournemouth.ac.uk
- The deadline for submission: **17:00, Monday 23, September 2019.**

If you wish to discuss your project idea in advance of your outline business case submission or if you have questions about the application process, please contact one of the members of our team:

Katherine May (until 13th Sep 19) Programme Manager	**Daniela Doncakova** Programme Manager
Tel: 01202 962720 Mob: 07802 721352 kmay@bournemouth.ac.uk	Tel: 01202 962717 Mob: 07802 721351 kmay@bournemouth.ac.uk
Martina Hanulova Strategy Development Manager	
Tel: 01202 965880 Mob: 07925 891380 mhanulova@bournemouth.ac.uk	

DORSET
Local Enterprise Partnership

APPLICANT INFORMATION

PROPOSED PROJECT	
Proposed project name	**Dorset Smart Place Investment Plan**
Location of proposed project	**BCP Council area, extending pan-Dorset**
Date of submission	**20 September 2019**
SCHEME PROMOTER	
Scheme promoter name	**BCP Council (with Dorset Council)**
Scheme promoter address	**Town Hall, Bournemouth**
Website	*www.bcpcouncil.gov.uk*
PROJECT MANAGEMENT	
Name of project lead / project manager	Adrian Hale / Ruth Spencer
Job title / role	Smart Place Strategy & Programming
Address	Town Hall, Bournemouth
Telephone	*01202 4531349*
Email	*adrian.hale@bcpcouncil.gov.uk*
ABOUT YOUR ORGANISATION	
Details of your organisation	*Local Authority*

Section A – Strategic Case

Executive Summary

Please set out a detailed description of the overall proposed project / scheme, particularly focusing on what the funding will be spent on (300 words or less).

A Smart Place is a 'place-based' approach that enables the collaboration between businesses, local people, the public sector, communities and other organisations, to deliver better economic, social and health outcomes through applying smart technology, Big Data and co-operative business models.

Through discussions with many industry partners it is clear that investment houses such as Infracapital, Macquarie, Aviva, Goldman Sachs, Cameron Barney and Amber Infrastructure have significant funds available ready to invest in major place-based digital projects. Over £350m of private funds have been identified for Belfast (part of its City Deal) and similar levels of investment are being made in various cities and places across the UK and Europe.

For Dorset to be 'investor ready' and to take advantage of the relationships that both BCP Council and Dorset Council have been building with industry and government there is an urgent need to develop a Smart Place 'Investment Plan'. This would articulate the unique opportunity for investing in digital in Dorset enabling the county to be at the forefront of digital connectivity and innovation. The purpose of the Investment Plan is to attract investment of around £500m into the urban area with a similar amount for rural Dorset.

BCP Council has already set out its 6-year Smart Place programme (see Appendix B) and through its Smart Place R&D consortium has formed relationships with global industry partners, who, with the right private sector investment, are well placed to help deliver Dorset's Smart Place ambitions.

The proposed Smart Place Investment Plan will generally accord with Treasury's '5-Case model' business case and therefore could also be used to attract government funding.

The Investment Plan would provide a detailed 'digital' annex to the Dorset Local Industry Strategy.

The need for a pan-Dorset digital business case/investment plan has been discussed at recent Connected Dorset meetings.

Project Objectives
Please provide key specific objectives planned to be achieved by this project – these should be SMART (Specific, Measurable, Achievable, Realistic, Time-bound) - 200 words or less: *Primary Objective:* ***By July 2020 to produce a Smart Place Investment Plan that will subsequently be used to attract significant inward investment of up to £1bn for the Dorset area to create a Smart Place, implementing associated digital connectivity and technologies.*** *Key objectives:* 1. *Assessment of business models and revenue-raising opportunities in order to forecast probable return(s) on investment and ongoing viability, making the case for external investment and subsequent sustainable management of the Smart Place (thereby minimising ongoing financial risk and commitment from the LEP and public sector bodies);* 2. *Providing evidence to support bids for major government investment including the Rural/Urban Connected Communities fund and DCMS' 'Outside-In' gigabit fibre programme;* 3. *Costings for implementation and management of the Smart Place including digital connectivity (fibre and wireless) and the Smart Place data platform;* 4. *Assessment of anticipated economic, social and health benefits;* 5. *Assessment of potential service cost savings for the public sector, in particular local authorities and the health service;* 6. *Legal and procurement assurance that the approach to be taken meets state aid and competition legislation, including assurance on 'Special Purpose Vehicle' options;* 7. *A recommendation on the preferred Smart Place 'Special Purpose Vehicle' (delivery vehicle) option.*

Rationale and Background

Narrative to include reasons why project is being undertaken, evidence of why the project is needed (including stakeholder engagement) and how will the project delivers the brief taking into account the local strategic objectives as outlined in Dorset's Strategic Economic Plan and Vision and national strategic objectives within the Industrial Strategy, please include maps/ graphs as appendices.

In 2018, Dorset County Council calculated that within Dorset there was a £2.5bn productivity deficit per annum compared to the UK average. Businesses within Dorset recognise the lack of good quality digital connectivity as a major factor affecting their competitiveness. **Only 7.54% of properties and businesses within the Dorset LEP area have access to gigabit fibre**, compared to the UK average of 8.92%. It is conservatively estimated that this contributes £250m per annum towards the productivity deficit. In mainland Europe many places have in excess of 70% gigabit connectivity. Government has indicated that the roll out of 5G alone could generate £173bn to the UK economy between 2020 and 2030. Based upon population, this equates to £400m per annum growth in Dorset's economy by 2030.

The Investment Plan aligns with government's Industrial Strategy in regard to the 5 foundations that support government's vision for a transformed economy:

Ideas: the world's most innovative economy
People: good jobs and greater earning power for all
Infrastructure: a major upgrade to the UK's infrastructure
Business Environment: the best place to start and grow a business
Places: prosperous communities across the UK.

The Investment Plan also aligns perfectly with the Industrial Strategy's first 4 Grand Challenges:

Artificial Intelligence and data;
Ageing society
Clean growth
Future of mobility

The Smart Place applications and use cases (such as health, social care, transport and environment) that are planned as a result of the proposed inward investment in digital technologies would specifically support each of these Grand Challenges and help Dorset to lead on innovation in these areas.

Dorset has one of the highest proportions of older people population nationally and faces significant challenges around how to care for older people. Inward investment would support both the Dorset Clinical Commissioning Group (DCCG) and Bournemouth University's work around digital healthcare, as well as the Councils' Smart Place social care initiatives including using digital to support 'adaptive living.' It also supports Dorset Council's 'Routes to Inclusion' programme seeking to tackle digital exclusion.

The project builds upon work already supported by the LEP including the Orthopaedic Research Institute (ORI) project and the Digital/Smart Place Pilot at the Lansdowne.

The Smart Place approach is supported by the Councils at both a political level and senior management level. Bournemouth University will also be a key contributor and beneficiary from the development of the Smart Place programme and is fully supportive (see letter attached). The DCCG is working closely with both councils and the university and also supports a county-wide Smart Place approach.

Timescale *Length of project to completion.*	
Project start date	1 November 2019
Project end date	31 July 2020
Outcomes (up to March 2021) achieved by	31 July 2020 for the Investment Plan, then 8 months for attracting initial upfront investment to March 2021. (5-years thereafter for further investment and implementation)

Section B – Economic Case

Business Options *Analysis and reasoned recommendation against a number of options. The preferred option must be highlighted, including decisions why that is the preferred option and why others were not taken forward.*	
Do nothing (Option 1)	Dorset misses out on the opportunity to benefit from significant inward investment into digital and Smart Place technology, which will go elsewhere. The county continues to be subject to the commercial market for the delivery of digital connectivity, in terms of speed and geographical coverage. Productivity continues to lag behind UK average (and mainland Europe) and significant health and social benefits are not realised.
Do the minimum (Option 2)	A Do-Minimum option is to deliver a high-level Investment Plan in-house. Whilst this could articulate some of the benefits, it is unlikely that it would be in sufficient detail for prospective investors.
Do something (Option 3)	Undertake a comprehensive Investment Plan for the BCP Council area only. This would involve the commissioning of recognised partners and consultants to support the development of the Investment Plan and provide greater assurance to prospective investors. (Estimated cost £250k)
Do something (Option 4)	**Preferred Option:** Undertake a comprehensive Investment Plan for the whole of Dorset (LEP) area. This would involve the commissioning of recognised partners and consultants to support the development of the Investment Plan and provide greater assurance to prospective investors. The advantage of a Pan-Dorset plan would be to extend the Smart Place delivery and benefits across the whole of Dorset and provide greater opportunity for potential investors **(Estimated cost £380k)**

Key milestones *List the key milestones proposed for the delivery of your project and their delivery date. Add additional rows if necessary.*	
Milestone activity:	**Completed by:**
Confirmation of Funding from the LEP	November 2019
Commissioning partners and consultants	January 2020
Completion of Investment Plan	July 2020

Financial Case
Narrative surrounding the estimated detailed costs and how they were derived, detail on how risks have been costed and where any local contributions come from, please consider if State Aid would affect this project. The costs have been derived from an outline proposition from Connected Places Catapult, recent management consultant commissions and internal discussions with BCP procurement. Local contributions will be from council officer time (£20k), and in-kind contributions from partners, particularly those involved in the BCP Smart Place R&D Consortium. It is estimated that the value of non-chargeable consultancy fees would be in the region of £60k.

Costs
Summary of costs for high level elements of the projects.

Expenditure Item	**Cost (£)**
In-house Council resources	£100,000 + £20,000 match funding
Specialist Consultancy(s) Support	£180,000
Specialist Legal, and Procurement Support	£100,000
Partner Support	£60,000 match funding

	2019/20	2020/21	**Total**
Funding requested	100,000	280,000	£380,000
Match funding	10,000	10,000	£20,000
Other financial investment	10,000	50,000	£60,000
Total Project Cost	120,000	360,000	£460,000

Major risks *Summary of key risks, including indication of likelihood and impact of each risk*									
Description of risk	**Initial risk**			**Description of likely impact and consequences if risk occurs**	**Risk response(s)**	**Risk following response**			**Risk owner**
	Prob.	**Impact**	**Score**			**Prob.**	**Impact**	**Score**	
Delay in procuring supporting consultants	3	3	9	Delay to commencement of development of Investment Plan	Early engagement with the procurement team	2	3	6	BCP Council
Problem attracting appropriate supporting consultants	2	3	6	Delay to commencement of development of Investment Plan	Informal discussions have already taken place and interest has been confirmed	1	3	3	BCP Council
Investment Plan fails to make the investment case	2	5	10	Failure to attract anticipated level of investment	Discussions have confirmed major investment is already taking place elsewhere and major global companies have already expressed an interest in investing in Dorset based upon local Smart Place thinking and progress	1	5	5	BCP Council/ Dorset Council

Guidance on completing Major Risks:

- Impact and probability ("prob") to be recorded on a scale of 1-5, where 5 is high.
- The risk score is calculated by multiplying the risk probability ("prob") and the risk impact.

Describe the project outputs in order of significance.

Please outline immediate outputs of the scheme i.e. length of road built, floorspace created, equipment bought, etc.

The key project outputs are:

1. The Investment Plan – to enable potential investors to make an early decision on significant levels of funding for digital connectivity in Dorset (estimated value £1bn). The Investment Plan will generally be in accordance with Treasury's '5-Case model':
    a. *The Strategic Case;*
    b. *The Economic Case;*
    c. *The Commercial Case;*
    d. *The Financial Case and*
    e. *The Management Case.*
2. Network plans for pan-Dorset gigabit fibre deployment (targeting 70% coverage across Dorset within 5 years and 100% coverage within 10 years);
3. Network plans for pan-Dorset wireless deployment, including 5G, IoT and public Wi-Fi.
4. The outline architecture for a Smart Place data platform and associated hardware and software to host, manage and aggregate 'place-based' data at scale, including artificial intelligence and machine learning.

Ultimately the inward investment would be used to develop the 6-year Smart Place Programme to include:

- *Digital infrastructure, including gigabit fibre and wireless technologies to provide connectivity across the whole of Dorset;*
- *Smart Place data platform (City Brain) to host, manage and aggregate 'place-based' data at scale, including artificial intelligence and machine learning;*
- *Place-based applications to enhance social and economic outcomes e.g. business, mobility, health, environment and energy applications;*
- *Major opportunities for local industries and public bodies to innovate in digital technologies and in particular 5G, AI and Machine Learning.*

Expected benefits
Additional measurable benefits delivered as a result of the project (against baseline), for the surrounding area, supply chain etc. Including the use of new technology, clean growth, etc. Can be qualitative and quantitative 1. Economic: Significant opportunity for the advanced manufacturing sector in Dorset to be at the forefront of developing 5G-enabled 'machines', AI and machine learning. *(Positive conversations regarding investment in Dorset have already taken place with the world's leading 5G chipset manufacturer and major global companies leading on machine learning and AI);* 2. Health & Wellbeing: A Smart Place approach will enable a transformation in how services are provided for local people, using digital technologies and data at scale to deliver far better health, well-being, accessibility, social inclusion and environmental outcomes. It will enable further innovation around the digital health agenda being undertaken by the Dorset Clinical Commissioning Group and Bournemouth University and the assisted living programmes being pursued in social care by both Councils; 3. Skills & Education: The investment of major global companies in Dorset unlocks considerable opportunities for education locally. Immediate opportunities in Smart Place cyber security and data analytics are already being discussed with Bournemouth University. There will also be excellent opportunities for colleges, schools and businesses to benefit from the presence of major digital companies, building on the work of Dorset Council in growing and developing local digital skills; *(Global companies currently engaged include: Alibaba; Samsung, Qualcomm, Nokia; Huawei; Bosch, Cisco, Reliance Industries, Amazon, Microsoft; Siemens)*

Expected dis-benefits
Potential outcomes perceived as negative by one or more stakeholders, which would arise as actual consequences (not risks) of carrying out project. Some members of the public have perceived health concerns around the deployment of wireless technology (including 5G). Some minor disruption to traffic would take place due to the installation of ducting for gigabit fibre and antennae for wireless connectivity.

Investment Appraisal

Compare aggregated benefits and dis-benefits to project costs using Return On Investment (ROI) measure.

The following high-level ROI calculation is based upon the benefits that would accrue if investment is secured and the Dorset Smart Place is delivered as a result of developing the Smart Place Investment Plan. (It does not represent the ROI of developing the Investment Plan in isolation).

Refer to ROI Calculation (Appendix A)

Discounted Present Value (PV) Analysis - **15-year Assessment**

Present Value Benefits accrued over 15 years:

1. Addressing Productivity Deficit with rest of UK (Digital) = **£1,861m**
   Assumes 80% of estimated annual £250m deficit will be addressed

2. Economic Growth due to provision of 5G = **£4,600m**
   FCCG's report suggests that UK leadership in 5G could result in the opportunity to create £173 billion of incremental UK GDP growth over a ten-year period from 2020 to 2030– which for Dorset equates to £400.0m per annum by 2030*

3. Permanent jobs - 200 extra-over newly created permanent jobs to operate Smart Place = **£107.0m**
   Figures based upon ECON-i Economic Impact Assessment

4. Temporary construction jobs –Digital connectivity/Smart Place (£500m) = **£308.8m**
   Figures based upon ECON-i Economic Impact Assessment

Total Value of Benefits = £6,876.4m

Present Value Costs accrued over 15 years:

1. **Smart Place Development Costs** = **£1149.4m**

2. **Smart Place Operational Costs = £117.7m**
   Assumes Smart Place operational costs of £15m per annum

Total Value of Costs = £1267.1m

15-Year Benefits to Cost Ratio (BCR – ROI measure) = 5.4: 1**

** DCMS/HM Treasury "Next Generation Mobile Technologies: A 5G Strategy for the UK" 2017 citing the Future Communications Challenge Group "UK strategy and plan for 5G & Digitisation – driving economic growth and productivity" 2017*
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/597421/07.03.17_5G_strategy_-_for_publication.pdf

*** The BCR/ROI measure does not take into account the likely considerable social and healthcare benefits; the significant operational savings for the local authorities and Dorset healthcare; nor the potential income that could be generated through a Smart Place approach. These additional benefits would be assessed as part of the Investment Plan. The true ROI is therefore expected to be far in excess of 5.4:1.*

Environmental Impact
Please identify how the project will be managed so as to ensure, as far as reasonably possible, the development is sustainable and there is minimal damaging environmental impact (200 words or less). This project involves the production of the Smart Place Investment Plan, therefore has no immediate impact on the environment. It will subsequently give rise to investment and then the physical development of a Smart Place and there will be environmental impacts resulting form construction and the use of materials. However, the Smart City approach will encourage greater use of sustainable travel, cutting down on emissions. It will also enable better use of energy and better management of the environment through greater visibility of information and data and associated behaviour change.

	2019/2020	2020/2021	2021/2025	Total
Productivity value increase	£0	£5m	£85m	£400m
Additional public sector investment leveraged[1]	£0	£0m	£30m	£35m
Additional private sector investment leveraged[1]	£0	£0m	£600m	£600m
No. of housing units completed				
Unlocked land (Hectares)				
Floorspace created (m^2) (include planning designation)				
No. of businesses relocated to LEP region	0	2	50	52
No. of new business start ups	0	2	20	22
Foreign direct investment attracted (£millions)	£0	£0m	£300m	£300m
No. of new permanent, paid full time equivalent jobs[2]	0	16	400	416
No. of retained jobs	0	200	5000	5200
No. of up-skilled jobs	0	200	5000	5200
No. of volunteer positions	0	20	500	520

1 Investment as a result of the scheme taking place, e.g. business investing in business park as a result of new link road.
2 Jobs figures should be direct jobs employed by the project.

No. of new trainees/ apprentices/ work placements	0	10	100	110
No. of visitors/tourists				

Section C – Management Case

Governance arrangements

How will the project be governed? What is the proposed delivery plan?

This project will be led by BCP Council's Smart Place Team and will be jointly managed by both BCP Council and Dorset Council (to ensure that specific outcomes for each council are captured and pursued) with the additional support of Bournemouth University.

Internal governance will be formally monitored through BCP Council's Capital & Transformation Board and through normal management reporting routes.

Highlight reports, documenting progress will be supplied to the LEP on a bi-monthly basis, with progress being discussed at regular meetings with DLEP's Digital Programme Manager. In addition, progress will be reported at DLEP's Connected Dorset meetings.

The delivery plan for the Investment Plan is as follows:

1. Confirmation of Funding from the LEP *November 2019*
2. Commission consultants and partners *December 2019 to January 2020*
3. Develop and complete Investment Plan *February to July 2020*

Permissions and consents

What permissions and consents are necessary to carry out your project? What is the status?

List all permissions and consents required. Add additional rows if necessary.	**Have they been obtained?** **YES / NO**	**If YES, provide the date received (mm/yyyy)** **If NO, provide the date expected (mm/yyyy)**
Senior management approval (BCP)	Yes	19 Sept 2019
Senior management approval (Dorset)	Yes	20 Sept 2019
Senior management approval (B.U.)	Yes	20 Sept 2019

DORSET
Local Enterprise Partnership

Appendix A: ROI Calculation

Smart Place Investment Plan Implementation - BCR Present Value (PV) Calculation - (Excludes social and health benefits and income) - Over 15 years

Assessment Period =	15 years
STPR (standard rate - Green Book) =	3.5
Cost of Scheme (£K)=	1,000,000
Uplift for indirect taxation	20.9%

Values in £K

	Scheme Costs	+ uplift
Year 1	300000	362700
Year 2	250000	302250
Year 3	200000	241800
Year 4	150000	181350
Year 5	100000	120900
	1000000	1209000

			PV BENEFITS				PV BENEFITS			PV BENEFITS			PV BENEFITS			
			Dorset Digital Productivity Deficit Addressed (by gigabit fibre)				Dorset Relative Economic Growth Due to 5G			Temporary Created Jobs (Construction of Digital Networks)			Permanent Created Jobs (Operating the Smart Place)			TOTAL
Year (Date)	Year (No.)	P.V. Factor	Unadjusted Discounted Present Value*	% productivity deficit addressed	Adjusted Discounted Present Value	Unadjusted Discounted Present Value**	% of growth realised	Adjusted Discounted Present Value	Unadjusted Discounted Present Value***	% of temporary jobs created	Adjusted Discounted Present Value	Unadjusted Discounted Present Value***	% of permanent jobs created	Adjusted Discounted Present Value	Discounted Present Value
2021	0	1.000	250000	0%	-	400,000	10%	40,000	324800	30%	97,440	13640	0%	0	137,440
2022	1	0.966	241550	10%	24,155	400,000	20%	80,000	313822	25%	78,455	13179	0%	0	182,610
2023	2	0.934	233375	20%	46,675	400,000	30%	120,000	303201	20%	60,640	12733	0%	0	227,315
2024	3	0.902	225475	40%	90,190	400,000	40%	160,000	292937	15%	43,941	12302	0%	0	294,131
2025	4	0.871	217850	60%	130,710	400,000	50%	200,000	283031	10%	28,303	11886	0%	0	359,013
2026	5	0.842	210500	80%	168,400	400,000	60%	240,000	273482	0%	0	11485	100%	11485	419,885
2027	6	0.814	203375	80%	162,700	400,000	70%	280,000	264225	0%	0	11096	100%	11096	453,796
2028	7	0.786	196500	80%	157,200	400,000	80%	320,000	255293	0%	0	10721	100%	10721	487,921
2029	8	0.759	189850	80%	151,880	400,000	90%	360,000	246653	0%	0	10358	100%	10358	522,238
2030	9	0.734	183425	80%	146,740	400,000	100%	400,000	238306	0%	0	10008	100%	10008	556,748
2031	10	0.709	177225	80%	141,780	400,000	100%	400,000	230251	0%	0	9669	100%	9669	551,449
2032	11	0.685	171225	80%	136,980	400,000	100%	400,000	222456	0%	0	9342	100%	9342	546,322
2033	12	0.662	165450	80%	132,360	400,000	100%	400,000	214953	0%	0	9027	100%	9027	541,387
2034	13	0.639	159850	80%	127,880	400,000	100%	400,000	207677	0%	0	8721	100%	8721	536,601
2035	14	0.618	154450	80%	123,560	400,000	100%	400,000	200661	0%	0	8427	100%	8427	531,987
2036	15	0.597	149225	80%	119,380	400,000	100%	400,000	193873	0%	0	8142	100%	8142	527,522
					1,860,590			4,600,000			308,779			106,996	6,876,365

PV COSTS		
Cost - Scheme		
Scheme Cost (with uplift)	Operational Cost****	Discounted Present Value
362700	0	362,700
302250	0	292,034
241800	0	225,720
181350	0	163,560
120900	0	105,352
0	15000	12,630
0	15000	12,203
0	15000	11,790
0	15000	11,391
0	15000	11,006
0	15000	10,634
0	15000	10,274
0	15000	9,927
0	15000	9,591
0	15000	9,267
0	15000	8,954
1209000	92832	1,267,031

BCR =	5.4

* Based upon an estimated productivity deficit of £250m compared to rest of UK

** Based upon government figure of £173bn increase in economic growth for whole of UK from 2020 - 2030 equates to £400m per annum for Dorset by 2030

*** ECON-i Economic Impact Assessment

****Smart Place operational costs estimated at £15m per annum after year 5

Appendix B: BCP Council Smart Place Programme

BCP Council Smart Place Preliminary Delivery Programme

	Elements	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2025 Q1	2025 Q2	2025 Q3	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q4
1	**Governance**																												
1.02	Democratic Process/Internal Governance																												
1.03	Stakeholder Management																												
1.04	Community Engagement																												
1.05	Financial Control																												
1.06	Legal Compliance																												
1.07	Risk Management																												
1.08	Outcomes Monitoring																												
1.09	Programme Management																												
2	**Business Case, Finance, Funding & Value**																												
2.01	Smart Place Business Case Consultancy Support Procurement																												
2.02	**Smart Place Investment Plan/Business Case Development**																												
2.021	*Strategic Case*																												
2.022	*Economic Case (Costs v Benefits)*																												
2.023	*Commercial Case (case for investment & business models)*																												
2.024	*Financial Case*																												
2.025	*Management Case (delivery vehicle options and preference)*																												
2.03	Smart Place Delivery Vehicle Soft Market Testing																												
2.04	Smart Place Delivery Vehicle Procurement																												
2.05	Smart Place Elements Procurement (as necessary)																												
2.06	Raising Investment/Funds (including bidding for support)																												
2.07	Partner Contributions																												
2.08	Payment Mechanisms e.g. e-pay, Blockchain																												
3	**City Digital Network**																												
3.01	Network Planning																												
3.02	Fibre & Ducting Installation									Build (TCF/BBC/Private Investment)																			
3.03	Core Network & Software								Build																				
3.04	Backhaul & Data Centre Connection								Build																				
3.05	Cyber Security (Network)									Pilot at University																			
3.06	5G Network Mapping				Pilot				Phase 1																				
3.07	Spectrum (3.8 to 4.2 GHz)																												
3.08	Spectrum (26.5 GHz)			(Rolling 1-year)				(Rolling 1-year)																					
3.09	Public Wi-Fi				Pilot				Phase 1																				
3.10	I.o.T. Network				Pilot				Phase 1																				
3.11	3.8-4.2 GHz 5G Network				Pilot				Phase 1																				
3.12	26.5 GHz 5G Mobile Network				Pilot																								
3.13	Equipment & Network Testing																												
3.14	Network Operation/OSS									BBC/PI																			
3.15	Construction of Network Operational Control Centre																												
4	**City Data Management Platform**																												
4.01	Data Governance & Control Framework																												
4.02	City Data Availability Audit																												
4.03	Assessment of Data Needs for Citizens																												
4.04	Citizen Participation Data (Opt In)																												
4.05	Cyber Security (Data)																												
4.06	City Data Architecture Design																												
4.07	City Data Management System																												
4.08	Data Analytics, Insight & Tailoring (City Brain operation)																												
5	**City Applications**																												
5.01	Community Cohesion (including Smart City App)																												
5.02	Mobility /Transport (TCF + other transport initiatives)																												
5.03	Retail/E-Commerce																												
5.04	Policing/Security																												
5.05	Health & Social Care																												
5.06	Tourism & Culture																												
5.07	Education																												
5.08	Environment																												
5.09	Energy																												
5.10	Finance																												
5.11	Business																												
5.12	Utilities																												
5.13	Development of other application opportunities																												

Create Framework; Continuous Review
Audit; Continuous Review
Assessment; Continuous Review
Student Pilot; City Pilot; City Roll-out
Assessment; Pilot at University; Deployment at University; Full Deployment at new Operational Control Centre
Design; Continuous development
Pilot at University; Deployment at University; Full Deployment at new Operational Control Centre
Pilot at University; Deployment at University; Full Deployment at new Operational Control Centre
Initial Use Case; R/B; Student Pilot; City Pilot; City Roll-out/Continuous Development
Initial Use Case; Research/Build; City Pilot; City Roll-out; Continuous development
Initial Use Case; R/B; Student Pilot; City Pilot; City Roll-out/Continuous Development
Initial Use Case; Research/Build; City Pilot; City Roll-out/Continuous Development
Initial Use Case; Research/Build; City Pilot; City Roll-out/Continuous Development
Initial Use Case; Research/Build; City Pilot; City Roll-out/Continuous Development
Research/Build; City Pilot; City Roll-out/Continuous Development
Initial Use Case; Research/Build; City Pilot; City Roll-out/Continuous Development
Initial Use Case; Research/Build; City Pilot; City Roll-out/Continuous Development
Research/Build; City Pilot; City Roll-out/Continuous Development
Research/Build; City Pilot; City Roll-out/Continuous Development
Research/Build; City Pilot; City Roll-out/Continuous Development
Further ideas, incubation and implementation

v0.5(AH)