The template

This document provides the business case template for projects seeking funding which is made available through the **South East Local Enterprise Partnership**. It is therefore designed to satisfy all SELEP governance processes, approvals by the Strategic Board, the Accountability Board and also the early requirements of the Independent Technical Evaluation process where applied.

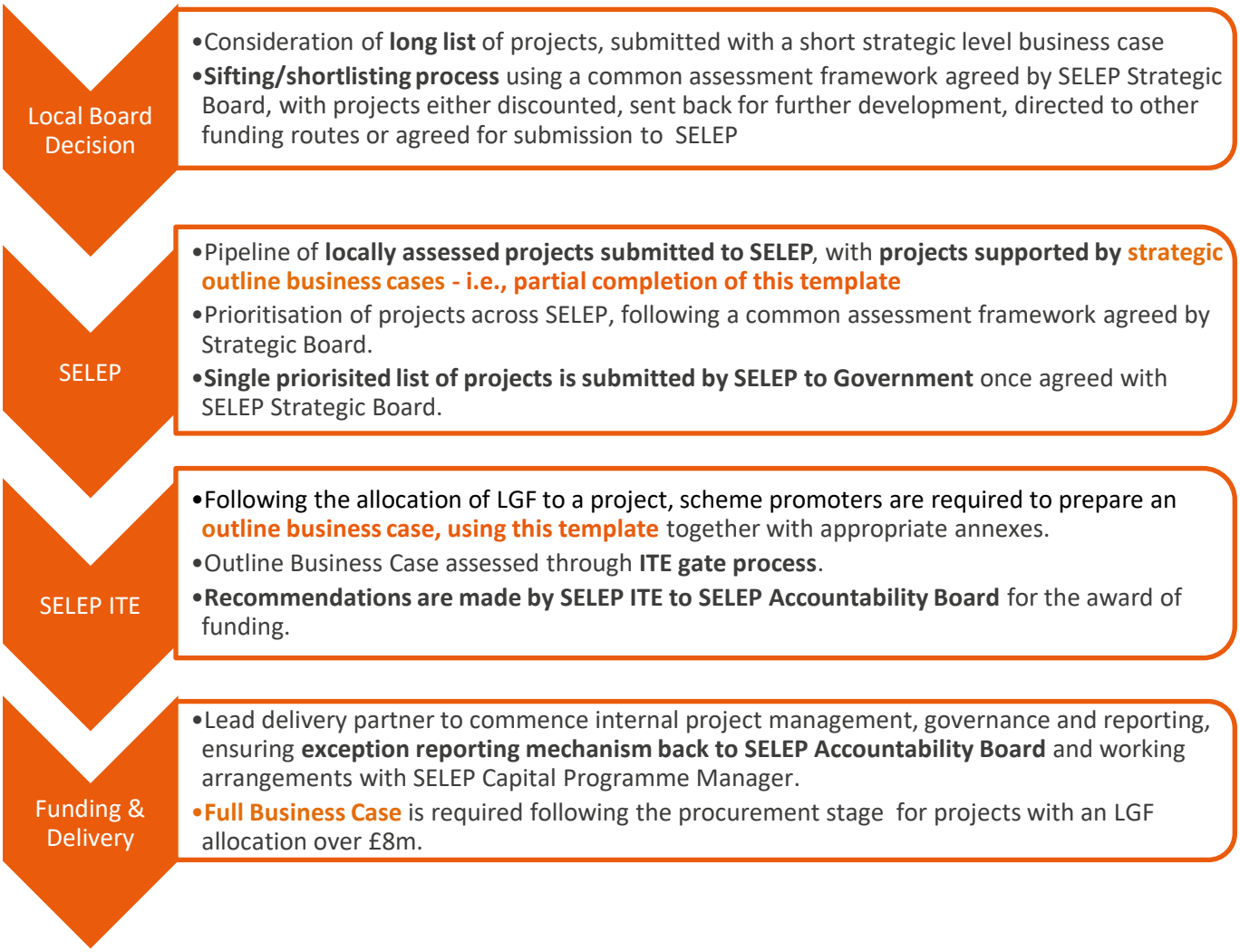
It is also designed to be applicable across all funding streams made available by Government through SELEP. It should be filled in by the scheme promoter – defined as the final beneficiary of funding. In most cases, this is the local authority; but in some cases the local authority acts as Accountable Body for a private sector final beneficiary. In those circumstances, the private sector beneficiary would complete this application and the SELEP team would be on hand, with local partners in the federated boards, to support the promoter.

Please note that this template should be completed in accordance with the guidelines laid down in the HM Treasury's Green Book. https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent

As described below, there are likely to be two phases of completion of this template. The first, an 'outline business case' stage, should see the promoter include as much information as would be appropriate for submission though SELEP to Government calls for projects where the amount awarded to the project is not yet known. If successful, the second stage of filling this template in would be informed by clarity around funding and would therefore require a fully completed business case, inclusive of the economic appraisal which is sought below. At this juncture, the business case would therefore dovetail with SELEP's Independent Technical Evaluation process and be taken forward to funding and delivery.

The process

This document forms the initial SELEP part of a normal project development process. The four steps in the process are defined below in simplified terms as they relate specifically to the



LGF process. Note – this does not illustrate background work undertaken locally, such as evidence base development, baselining and local management of the project pool and reflects the working reality of submitting funding bids to Government. In the form that follows:

Version control	
Document ID	NIAB EMR LGF application
Version	
Author	M Caccamo / S Flanagan
Document status	
Authorised by	
Date authorised	

SOUTH EAST LOCAL ENTERPRISE PARTNERSHIP

1. PROJECT OVERVIEW

1.1. Project name:

East Malling Advanced Technology Horticultural Zone

1.2. Project type:

Commercial space/ business support, innovation and skills.

1.3. Federated Board Area:

Kent & Medway

1.4. Lead County Council / Unitary Authority:

Kent

1.5. Development location:

New Road, East Malling, Kent, ME19 6BJ

1.6. Project Summary:

NIAB EMR in partnership with the **East Malling Trust** proposes to develop an **Advanced Technology Horticultural Zone** at **East Malling**, which would be the first step towards delivering the vision of a cutting-edge Innovation Campus for horticulture in Kent. This campus will secure the long-term delivery of world-class research, innovation and knowledge exchange for the UK horticultural industry. This project will create infrastructure, services and high-tech plant growing facilities which will generate upwards of **£570k p/a** in additional R&D spend in the region, creating **14 new knowledge-based and highly skilled jobs** in addition to safeguarding **40 jobs** at NIAB EMR. The project will also achieve significant direct private sector leverage of **£3.193m** through the sale of land released for the development of **410 houses** (achieving a **BCR** of **2.61:1** in direct economic benefits).

Wider benefits will include a de-risked environment to unlock follow-on private sector investment that is needed to deliver further R&D facilities. The project will also facilitate the development of the wider Innovation Campus at East Malling and contribute to the economic growth and skills agenda of the Kent and Medway region stimulating demand for the provision of high quality training and **150 new jobs** in the horticulture sector.

This project will specifically provide the new infrastructure that is required for the Advanced Technology Horticultural Zone (utility services, drainage, groundworks) and see the construction of a new **energy centre** that will meet the needs of the Zone. It will also provide the first **state-of-the-art glasshouses** (**1,200m$_2$**). The project will use advanced greenhouse designs which will host high-tech imaging, robotics, precision irrigation rigs, LED lighting and CO_2 systems with the purpose of advancing horticultural agronomy in the region. This facility will allow an increased level of innovative research projects and best practice demonstrations to be delivered in a commercially relevant setting.

Accelerating investment at East Malling will ensure that NIAB EMR and its partners remain at the cutting edge of research and innovation and are able to secure future public and private sector funding. Access to the most advanced facilities is essential to attract and retain high-calibre staff,

provide the 'know-how' that is needed by industry to deliver sustainable growth and productivity gains, and ensure that Kent and Medway remains a world-class leader in horticultural innovation and drives the sector to enhance the provision of fresh produce.

1.7. Delivery partners:

Partner	Nature of involvement (financial, operational etc.)
NIAB EMR (lead applicant)	Project delivery lead. Management and operations. Provide part funding for the project.
East Malling Trust (EMT)	Major financial contributions and will make the land available for the development.

1.8. Promoting Body:

NIAB EMR are promoting the scheme.

1.9. Senior Responsible Owner (SRO):

Professor Mario Caccamo
Managing Director
NIAB EMR
New Road, East Malling, Kent, ME19 6BJ

Phone +44 (0)1732 523711
Email mario.caccamo@niab.com

1.10. Total project value and funding sources:

The total project value is **£5,043,300**.

This will be funded through three funding sources – East Malling Trust (EMT), NIAB EMR and the LGF 3B grant.

The split by funding source is shown below in the table along with comments on the flexibility of the profile and key constraints or dependencies.

Funding source	Amount (£000)	Flexibility of funding scale or profile	Constraints, dependencies or risks and mitigation
East Malling Trust	271.0	Design, survey and planning application.	First phase of project. No constraints to delivery. Planning consent has been already obtained (November 2019).

LGF	1,750.0	Construction phase.	Risk in grant not being secured or awarded too late to spend the funding by 31 March 2021.
East Malling Trust	2,922.3	Construction phase - Utility infrastructure works, energy centre & glasshouse	Dependent on LGF award. Risk of delay in funding availability from land sales for residential development (planning granted but sale is currently on hold due to the Covid-19 outbreak).
NIAB EMR	100.0	Investment in equipment and fit-out of new facilities	Dependent on facility being constructed.
Total project value	**5,043.3**		

1.11. SELEP funding request, including type (LGF, GPF etc.):

Funding required is from Local Growth Fund. Grant sought is **£1,750,000.00**

In the case of this grant application, state resources are involved as the project will be funded by the Local Growth Fund (via SELEP). As a result, this project will be fully compliant with State Aid Regulations and procurement procedures.

Guidance on State Aid Regulations has been followed in preparation of this project application. Legal advice is being sought on the **General Block Exemption Regulation** using the English Research, Development and Innovation State Aid Scheme, specifically **Investment aid for research infrastructures/ Aid for innovation clusters**. This risk is included in the Risk Register in Appendix C.

1.12. Exemptions:

We do not believe that this Business Case is subject to any Value for Money exemptions as per the SELEP Assurance Framework (March 2019). **However, there may be an argument that Exemption 1 applies as the scheme is for less than £2m of grant funding.**

1.13. Key dates:

Activity	Duration (months)	Start	Conclude
Design works and development of planning application	6	Nov 2018	Completed
Planning application determination period	5	May 2019	Completed November 2019
Tender Preparation	1	March 2020	April 2020
Contractor(s) procured, contract let and mobilised	4	April 2020	August 2020

Infrastructure service works	3	September 2020	November 2020
Construction works	6	October 2020	March 2021
Fit-out works	1	March 2021	May 2021
Facility commissioned/ operational	0	June 2021	

1.14. Project development stage:

This project is an integral and crucial component of the strategic masterplan for the development of the Innovation Campus at East Malling; a focal point for research and business in the heart of the leading horticultural growing region of the UK. This project will see the installation of new utility services to the site, construction of a low-carbon energy centre and construction of 1,200 m2 of new state-of-the-art glasshouses.

The first stage of the project is complete with a grant of full planning permission. This phase of the project has been funded by the East Malling Trust.

The main construction phase of the project will see the installation of the new utility services, construction of the energy centre building and new high technology glasshouses. This phase of the project will be funded principally by the East Malling Trust. **The LGF grant is requested to address the short fall in funding that exists for this construction phase.**

The final phase of the project will see the glasshouses fitted-out and commissioned for operation, the completion of the monitoring and evaluation of the project outputs, and the commencement of follow-on benefits realisation monitoring. **This phase of the project will be funded by NIAB EMR.**

Project development stages completed to date

Task	Description	Outputs achieved	Timescale
Procure services of consultants	Procure services of the design team and consultant support for the design, including specialist glasshouse consultants.	Team engaged	Nov 2018
Feasibility design	RIBA stage 1	Design Completed	Nov 18 – Dec 18
Detailed design	RIBA stage 2 and 3	Design Completed	Jan 19 – April 19
Design works for new utility supplies	Establish site requirements and liaise with utility	Requirements established	Jan 19 – April 19

	suppliers to ensure suitable supplies can be provided to site.		
Develop and submit planning application	Develop planning application for the Horticultural Zone following usual processes.	Planning Application Submitted	Jan 19 – April 19
Decision period	Planning application determination period	Full Planning Granted	May 19 – Sept 19

Project development stages to be completed

Task	Description	Timescale
Prepare Tender	Specifications for each works package prepared for Tender pack	March- April 2020
Procurement of contractors	Procure contractors, complying with procurement regulations.	April 2020- August 2020
Installation of new services	Construction phase for new utility services.	September- November 2020
Construction phase for energy centre & glsashouse	Construction phase for energy centre & glasshouses	October 2020- March 2021
Fit-out & Commission	Fit-out of completed glasshouses. Commissioning. Bring into active service. & benefits.	March 2021- May 2021
Monitoring	Monitoring of deliverables (outputs) from the project.	June 2021- December 2021
Evaluation	Evaluation of the wider benefits of the project (outcomes and impacts)	December 2021- December 2025

1.15. Proposed completion of outputs:

[Include references to previous phases / tranches of the project (link to the SELEP website) and to future projects to be funded by SELEP. Please see SELEP Programme for more information.]

Delivery of this project is programmed to be complete by June 2021 with the commissioning and operation of the new facilities by NIAB EMR.

The benefits realisation monitoring phase will extend beyond the LGF funding period from 31 December 2021 to 31 December 2025 (a four-year period).

2. STRATEGIC CASE

The Strategic Case should present a robust case for intervention, and demonstrate how the scheme contributes to delivering the SELEP Strategic Economic Plan (SEP) and SELEP's wider policy and strategic objectives. It includes a rationale of why the intervention is required, as well as a clear definition of outcomes and the potential scope for what is to be achieved.

The outlook and objectives of the Strategic Case need should, as far as possible, align with the Monitoring and Evaluation and Benefits Realisation Plan in the Management Case.

2.1. Scope / Scheme Description:

The East Malling Trust has a Strategic Masterplan to develop a new cutting-edge Innovation Campus for horticulture at East Malling. The campus will provide state-of the-art facilities for innovative R&D and commercialisation of agri-technology in the UK's leading horticultural growing region. The Innovation Campus will secure the long-term delivery of world-class research, innovation and knowledge exchange for the UK horticultural industry. In order to remain competitive on the world stage, the UK industry must continue to adopt the most sustainable production methods that make best use of the most advanced technology while increasing productivity.

NIAB EMR is seeking **LGF grant funding** to undertake Phase 1 of the Masterplan which comprises the development of an **Advanced Technology Horticultural Zone** at East Malling. The construction of this facility is a key project, and the first step towards achieving the long-term vision of the Innovation Campus. It will unlock future investment that is needed to deliver the site Masterplan and growth agenda of the Kent and Medway region.

Phase 1 will involve enabling works to provide the **infrastructure** necessary for the new Horticultural Zone (services, drainage, groundworks etc.) and see the construction of the infrastructure to house the **energy centre** (268m2) which in future will enable the deployment of low-carbon technologies. This will sustainably meet the *current and future needs* of the site. This phase of the project will also see the provision of the first **state-of-the-art glasshouses** (1,200m2) that will increase current capacity at the site. NIAB EMR propose to develop modern plant growing facilities with advanced greenhouse designs which will host high-tech imaging, robotics, precision irrigation rigs, research LED lighting and CO_2 systems with the purpose of advancing horticultural agronomy in the region. This facility will allow a range of innovative research projects and best practice demonstrations to be delivered in a commercially relevant setting.

The primary objective of this project is to unlock the East Malling campus for future investment and development so that the Innovation Campus can be delivered as the UK's centre of excellence for the horticultural sector. This will be achieved through the following:

- Construction of the primary infrastructure to service the new Horticultural Zone.
- Construction of a low-carbon energy centre to improve sustainability and reduce environmental impact in horticultural research and innovation.
- Construction of new state-of-the-art plant growing facilities that will enable new technologies and production systems to be developed, commercialised and demonstrated as best practice to the industry.

Current facilities at NIAB EMR are constraining their ability to remain at the forefront of industry-relevant research, innovation and knowledge exchange in horticulture (a more detailed consideration of the needs that are driving this project is provided in Section 2.5). **Acceleration of the investment on the East Malling site will help to prevent the UK from falling behind in a**

rapidly changing sector because it will allow NIAB-EMR and its partners to remain at the cutting edge and continuing to access public funds (eg. UKRI) as well as private support from industry. Access to the most advanced research facilities is essential to attract and retain high-calibre staff and ensure Kent and Medway remains a global leader and a point of reference for world class horticultural research, innovation and knowledge exchange. The intended outputs and outcomes of this project are described in further detail in the Logic Model presented in Section 2.2 and 6.9 of this application.

2.2. Logic Map

Inputs	Outputs	Outcomes	Impacts
Grant Spend **£1.75m** Matched Contributions Spend **£3.293m (**East Malling Trust & NIAB EMR)	1,200m2 glasshouse Energy centre (268m2)	**14** new jobs **£420k** p/a project funding (UK Research & Innovation) **£150k** p/a industry funding	**150** new jobs created elsewhere by industry **100** trainees **£500k** p/a industry R&D investment elsewhere **40** safeguarded jobs at NIAB EMR

2.3. Location description:

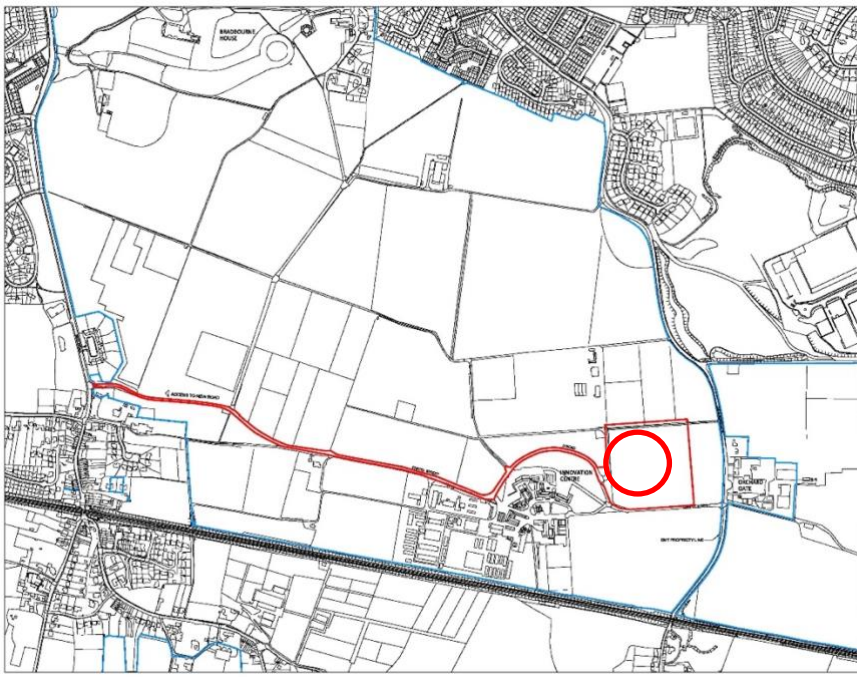
The Advanced Horticultural Zone development site is approximately 9.1 hectares/ 22.4 acres in size and currently comprises undeveloped agricultural land. The site is situated to the north east of the existing East Malling research buildings and Orchards Events Venue (location plan below). The parcel of land is surrounded on all four sides by existing hedge rows (circa 4m high) that were originally planted as windbreaks. High voltage power lines run along the northern edge. The site is located in Flood Zone 1, so has a low probability of flooding (less than 0.1% annual probability of flooding).

Vehicular and pedestrian access to the site is available from the private access road to the south of the proposed site. The existing access road runs along the West side of the site, next to the main farm buildings. There is no existing use or travel demand other than farming and associated research operations.

The location of the Horticultural Zone has been carefully considered, within the context of the overall site Master Plan, to ensure the glasshouse element makes the most of natural light by placing all 'overshadowing' elements, including the service building, to the North.

The approach to the site will be designed to be fully accessible with a suitable scale of provision of disabled parking, appropriate gradients to the external approach and accessible facilities as appropriate for the building use.

Location plan



Location of proposed development

2.4. Policy context:

National, regional and local planning policies

Within the context of planning considerations, the proposed project will make a major contribution to the social, economic and environmental conditions of the area by:

- Helping to increase horticultural productivity and thereby boosting the regional economy.
- Making best use of existing cultivated agricultural land through the adoption of cutting-edge technologies that increase production while minimising environmental impact (e.g. low carbon energy).
- Creating high-value scientific and technical jobs.
- Creating a demand for the provision of education and training to meet the needs of a growing horticultural supply chain.

National Planning Policy Framework 2019

National guidance is comprised of the National Planning Policy Framework (NPPF) 2019. The NPPF reflects the Government's pro-growth agenda and its commitment to building a strong, competitive economy and is underpinned by a "presumption in favour of sustainable development" (Paragraph 11). The planning system should also attach "significant weight" on the need to support "economic growth and productivity taking into account wider opportunities for development" (Paragraph 80). The main policies guiding development set out in the NPPF are as follows:

Achieving sustainable development - The Government states that the overarching purpose of planning is contributing to the achievement of sustainable development. The guidance sets out a presumption in favour of sustainable development that jointly seeks economic, social and environmental gains. Planning authorities are encouraged to positively seek opportunities for development.

Building a strong, competitive economy - This provides guidance on the government's commitment to ensuring the planning system does everything it can to support sustainable economic growth. Planners should act to encourage not impede economic development. Significant weight should be given to the need to support economic growth through development.

Paragraph 83 states, planning policies and decisions should enable - "the sustainable growth and expansion of all types of business in rural areas, both through conversion of existing buildings and well-designed new buildings; the development and diversification of agricultural and other land-based rural businesses; sustainable rural tourism and leisure developments which respect the character of the countryside…"

Agricultural Technologies (agri-tech)

Agricultural science and technology is rapidly becoming one of the world's fastest growing markets. It is driven by global changes: a rising population, rapid development of emerging economies with western lifestyle aspirations and growing geopolitical instability around shortages of land, water and energy. A technology revolution is also taking place. Breakthroughs in nutrition, genetics, informatics, satellite imaging, remote sensing, meteorology, precision farming and low impact agriculture mean agri-tech has huge potential for development.

Agri-tech is a well-established and important UK sector, with institutes and university departments at the forefront of areas of scientific research vital to agriculture well positioned to make an impact on global markets through exports of products, science and farming practices. The Government

seeks to improve the UK's progressive food and farming businesses, and world class science base, to unlock a new phase of global leadership in agricultural innovation. The Government spent £450 million in 2011/12 on agri-food research and development (R&D)

The infrastructure to support industry in applying science and technology to help modern farming and food production has declined over the past 30 years. UK agriculture's productivity growth has declined relative to our major competitors. Aspects of the current regulatory regime and skills gaps can hinder the UK in developing and using innovation and new technologies. The Government are seeking to address these gaps and meet the potential to attract more global investment and EU funding into the UK and open up new global markets for UK leadership in agri-tech innovation.

Due to the continued growth in population, agricultural production issues such as costs and environment factors mean agricultural systems need to be more efficient, resilient and sustainable. Innovative horticultural research departments are required to increase production, and cope with a more variable and changing climate and cope with a rapidly changing world, in ways that are profitable for producers but also enhance the provision of other ecosystem services, increase the efficiency of resource use, result in less waste across the food system, and minimise greenhouse gas emissions

SELEP Strategic Economic Plan

This project aligns to the five principles upon which the SELEP Strategic Economic Plan (SEP) is built:

Building on regional economic strengths. The target markets of this project are horticultural supply chains with a focus on protected environments that produce high-value foods using state-of-the-art production systems. These represent major sources of economic activity and employment in the region. This project will contribute towards the SELEP goal of building on sector strengths as a means of rebalancing the regional economy by enabling growth through innovation in a high-value sector.

Boosting productivity. It is well established that innovation clusters are major contributors to growth, sources of skilled jobs that attract talent and inward investment to a region. The creation of the Horticultural Zone (and ultimately the Innovation Campus) aligns closely with the SELEP's aim of supporting programmes that focus on stimulating innovation and boosting productivity. Indeed, SELEP has recognised that developing technology in agriculture is key to increasing productivity in the region. This project is essential if NIAB EMR is to continue to be a focus of innovation excellence delivering, for example, industry-focussed initiatives such as the Plant Breeding Clubs and the Water Efficiency Technology (WET) Centre. This project will enable NIAB EMR to work with a wider range of businesses to drive innovation and productivity growth further.

Improving skills. The SEP recognises that productivity in the region is limited by a skills gap, particularly in high-value, technology-based sectors. The project will directly support the employment of highly-skill technical staff to manage the facility. It will also enhance NIAB EMR's ability to attract public and private funding to deliver more ambitious research and innovation, which in turn will provide further opportunities for the delivery of industry-relevant training and the recruitment of skilled, knowledge-based workers. Ensuring the continued success of NIAB EMR as an internationally recognised centre of excellence will also create a demand for the provision of high-quality training in the region to meet the needs of a flourishing horticultural industry.

Re-Building confidence. Productivity in the region is under-performing, most notably through a lack of investment in research and innovation capacity, a loss of knowledge-based workers and an increasing skills gap across all levels. This is in stark contrast to other regions in Southern England

where investment in these areas has led to significant economic uplift and prosperity driven by research and business led collaboration. This project will establish a state-of-the-art facility that will be recognised as world-class.

Investing on growth areas around key transport corridors. NIAB EMR's unique geographical location means that it is at the centre of the vast majority of UK high-value horticultural production and a gateway to global markets. The East Malling site is accessible from the M2/M20 corridor and is also within walking distance from the East Malling Train station. Both Gatwick and City airports are easily reached.

SELEP Rural Strategy

The SELEP vision for its rural areas is one of a growing economy with a highly-skilled workforce and opportunities for business growth. As well as targeting the region's predicted decline of 400 jobs in the agricultural/horticultural sector, the project will contribute to the SELEP's Rural Strategy by:

- Providing access to rural businesses, critical infrastructure and professional advice and support (RE1);
- Offering solutions for sustainable food production in the form of novel disease-resistant and better-yielding crops (RE2);
- Developing the skills of the next generation of researchers, agronomists, growers and rural workforce (in partnership with the local land-based colleges) (RC2); and
- Supporting the development of sustainable strategies for the horticulture sector (REn1-3).

2.5. Need for intervention:

It is widely recognised that there is a "**market failure**" in the consumption of R&D goods and services by business, whereby purchase of R&D services is more restricted than if the market was functioning normally. Under these circumstances of an "incomplete market", the UK government actively encourages and supports higher levels of business engagement with R&D providers as a means of driving innovation and productivity improvements in the wider economy.

The intervention being proposed here is to invest in improving the R&D infrastructure at a newly developing Innovation Campus to encourage the further uptake of R&D services by horticultural businesses. In this specific case, the **LGF** investment is required to improve the capacity and capability of plant growing facilities at **NIAB EMR** and to unlock future follow-on investment in the region. The lack of capital investment is slowly debilitating NIAB EMR's ability to maintain a competitive position within the UK and globally. It has already been noted by national and international funders, and customers that the facilities on site fall below the standards and capabilities of research groups elsewhere in the UK and the EU.

NIAB EMR is located in the heartland of the UK's horticultural industry and provides an internationally recognised focus for independent research and innovation to support the sector. However, its ability to deliver this support in the long-term is severely constrained by lack of plant growing space, ageing facilities that fail to meet current standards for energy efficiency, and a lack of the infrastructure needed to support the deployment of cutting-edge technologies that are being developed to increase productivity and the adoption of sustainable production methods in the horticultural sector. This means that:

- Attracting funding will become increasingly difficult and NIAB EMR's ability to provide the R&D and KE support that will allow the UK industry to remain world-class, competitive and environmentally 'responsible' will diminish.
- Capacity for other agriculture businesses in the region to conduct R&D, innovation and commercialisation activities will also be limited by these constraints.

The need for this intervention is framed against a set of global, national and regional challenges and opportunity that are outlined below.

We face unprecedented challenges to produce increasing amounts of affordable, nutritious and safe food against a backdrop of rapid human population growth and diminishing resources. The UK is a net importer of fresh produce products exacerbating this position. Part of the solution to these problems is to increase productivity in our food systems through sustainable intensification. Horticulture will play an important role in tackling these challenges because it offers opportunities for **increasing productivity** of nutritious food while **minimising environmental impact** through the adoption of innovative technologies and production systems.

Generating 25% of the UK's arable crop output from 3.6% of arable land, horticulture represents some of the most intensive agricultural production systems with a strong demand for technology. **Improving economic growth and wealth distribution by driving productivity gains** is the cornerstone of the **Government's Industrial Strategy**. This project aligns closely with many of the 'foundations of productivity' outlined in the Strategy, namely:

- **Ideas** – creating an innovative economy.
- **People** – creating good jobs with greater earning power for all.
- **Business environment** – creating places for businesses to grow.
- **Place** – building prosperous communities.

It will deliver on the **Clean Growth Grand Challenge** through the construction of the infrastructure to house the **energy centre** which in future will enable the deployment of low-carbon technologies. The first phase of this infrastructure will be fitted to power the new facilities. The Horticultural Zone will also provide the capability to find commercially relevant solutions to **waste minimisation and clean production systems**. In addition, the project addresses the **Artificial Intelligence and Data Economy Grand Challenge** by providing the infrastructure through which technologies such as data analytics can be developed, validated and demonstrated in the horticultural sector.

The rise in the **healthy eating agenda** with moves towards plant-based diets shows no signs of abating and on average UK consumption would need to increase by 64% to meet the Government's dietary Eatwell Guidelines. **Horticulture has a major contribution to make towards the health and well-being agenda**. The role of diets that contain a significant intake of plant-based nutrients in disease prevention and healthy ageing is increasingly understood, as are their contribution towards a healthy and productive society. This project will enable NIAB EMR to deliver the research, innovation and knowledge exchange activities necessary to ensure the industry can meet these demands.

The UK horticultural industry is a primary producer for multiple supply chains in the UK Agri-Food sector which contributes **£112bn** to national GVA, employing **3.9m** people. Horticultural supply chains which focus on protected environments represent major sources of economic activity and employment in the Kent and Medway region with the South East contributing to more than **40% of the UK's horticultural production.** However, The Kent and Medway region is suffering from a 'shrinking' pool of high-skilled labour. Ensuring the continued success of NIAB EMR as an

internationally recognised centre of excellence will help to attract knowledge-based and skilled workers to the region. It will also catalyse a demand for the provision of high-quality training in the region to meet the labour needs of a flourishing horticultural industry.

This project will directly contribute to the **Kent & Medway Enterprise Partnership (KMEP)** objectives for regional growth. The importance of, and need to support, East Malling Research, as a key innovation centre of the region, has already been acknowledged ("Solutions: Unlocking growth" page 167). NIAB EMR is also explicitily mentioned in the current draft of the SELEP **Industrial Strategy**. KMEP's Growth Plan emphasises the need to expand Kent and Medway's private sector investment leverage by focussing on their major town centres and business locations, including East Malling Research which is recognised to "develop additional business premises".

The **West Kent Partnership** has also identified this type of project as "transformational" in their West Kent Priorities for Growth Strategy, stating that the following is required at East Malling (page 21):

"*capital investment to improve incubation and crop trial facilities in order to enhance horticultural and biotech research at the site, building on the organisation's historical international role in horticultural research and innovation*".

The current **Tonbridge and Malling Economic Regeneration Strategy** identifies one of the key infrastructure requirements in the borough as being 'Investment to enhance and develop new research facilities and promote new bio-tech businesses at the East Malling Research site'. This objective has been included in the consultation on the new strategy covering the period 2019-2023.

Whilst investment in Kent and Medway has focussed on developing regional infrastructure and innovation ecosystems in other sectors (e.g. engineering and life sciences) the horticultural sector, a major employer and legacy industry, has only seen limited investment to support innovation, skills development and business growth. Driven by NIAB EMR's formation in 2016 and building on more than 100 years of rich history at the forefront of innovation, the organisation is undergoing an exciting and ambitious period of transformation. With commitments of private sector investment (e.g. NIAB and the East Malling Trust) and the potential to leverage follow-on funding by others, the timing is now right for investment in this R&D infrastructure to enhance the UK's lead organisation for research and innovation in horticulture.

2.6. Sources of funding:

NIAB EMR was created in February 2016 following the acquisition of East Malling Research by the NIAB Group. Over the last four years the NIAB Group has worked towards placing the organisation in a sustainable revenue position, as NIAB EMR has worked through a detailed Recovery Plan for the business. This recovery plan has included substantial investment in the purchase of scientific equipment (ca. **£900k**) as well as investment in the creation of new senior roles and the promotion and development of existing staff (ca. **£150K pa**). The result to date has been impressive considering the limited access to modern facilities following many years of under-investment in UK research & development capability. The NIAB EMR future business plan is based on achieving growth in revenue through successful bidding for future government research and for profitable income through the increase in activity in bidding for industry funded research projects.

The development of the Advanced Technology Horticultural Zone is an integral part of East Malling Trust's strategic master plan for the 550-acre estate, which also includes the delivery of **410 new homes**. EMT is bringing forward two plots of land no longer required for field trials for residential

development to support Tonbridge & Malling Borough Council's objectively assessed housing needs. One of them has been granted planning consent in November 2019. Receipts secured from the sale of the land for housing will be invested by the East Malling Trust in the Advanced Technology Horticultural Zone at East Malling. These anticipated funds will be the primary source of funding for this project but they do not cover the full costs of the project, which are currently estimated at £5.043.3m. **The shortfall in funding is just under £2 million**. The options available to close this funding gap are highlighted below.

(a) **Private sector – borrowing from banks**. Borrowing money from commercial banks is generally not an option for organisations like NIAB EMR, or others within the NIAB Group, as they have limited assets to borrow against. These charitable organisations often do not own the land and buildings that they operate within as they are usually tenants, a situation arising from when they were privatised by former UK Governments.

(b) **Borrowing from within the NIAB Group**. The wider group does not have the resources for this kind of investment.

(c) **Reinvestment of profits generated from NIAB EMR trading activities**. For organisations like NIAB EMR (and others in the sector) there are limitations to the amount of turnover and profit that can be generated from their trading activities. This is in part due to the nature of their income streams – often 50% from government funding and 50% from commercial sources which are subject to strict conditions about the non-generation of profit. Operating profits are usually sufficient for reinvestment in people and equipment rather than the more considerable sums required for capital investment.

(d) **Sale of existing land assets and reinvestment of proceeds**. This is the mechanism that is currently being deployed by the East Malling Trust to raise funds for the proposed development of the Innovation Campus which includes this specific project but as explained above it is insufficient to cover the full cost of the Horticulture Zone.

(e) **Public sector –grants designated for capital projects from Research Councils & other research-based funding streams**. Like many comparable organisations in the wider Innovation Research & Technology (IRT) sector, NIAB EMR does not receive (due to being ineligible) large capital grant funding from UKRI (eg BBSRC or Innovate UK). The opportunity to bid for grants of this nature within the sector are few and far between. Priority investments over the past few years have been directed towards the four Agri-tech Centres of Innovation which are larger multi-organisation consortia rather than individual organisations.

(f) **Public sector – grants designated for capital projects from local government/ business support initiatives**. This form of funding remains the only viable alternative to option d) above and has been used successfully by comparable organisations in the wider IRT sector. Within the NIAB Group, NIAB itself has been able to previously secure both capital and revenue based funding for specific activities. In the case of **NIAB EMR bidding for LGF funding is highly relevant** due to the **strategic alignment** that exists between the proposals presented here and the SELEP Economic Plan and their published Rural Strategy.

In summary, NIAB EMR has fully explored all the funding options available to it and is currently looking to use a number of them to finance this project. Land is being sold to raise cash for reinvestment by the East Malling Trust. Equipment will be financed by NIAB EMR using profits generated through their own trading activities and with the support of the NIAB group. External

grant funding is the main funding opportunity that is being explored to address the short-fall in funding for the project.

2.7. Impact of non-intervention (do nothing):

Failure to secure the necessary LGF funding will negatively impact and significantly delay the ability to deliver this project and to invest in the infrastructure and facilities required to a) unlock the infrastructure and land required for follow-on investment and b) ensure NIAB EMR is well placed to serve the R&D, innovation and skills development needs of the regional economy.

If there was no capital injection into the East Malling site then there would be a steady erosion of NIAB EMR's capability to attract highly skilled workers and researchers, to bid for future public and private sector work and to translate that knowledge and skills to the wider horticultural industry. Over time this will impact on both the competitiveness of the region and the UK's horticultural and protected crop industry, as they would be constrained in their ability to test, evaluate and commercialise innovative new technology and products.

In addition to the economic arguments presented, failure to deliver this project will have a significant impact on both the environment and society. The development of modern and sustainable horticulture plays a key role in addressing two fundamental issues:

- Tackling the global challenges that we currently face - feeding a growing population with fewer resources while minimising environmental impact (sustainable intensification).
- Improving the health, disease prevention and well-being of the population, through the role of healthy diets, and thus reducing the burden that chronic diseases associated to poor nutrition bring on the National Health Service.

More importantly the lack of investment in the development of the East Malling site will also undermined the hard-won financial stability of NIAB EMR and threaten the future of the organisation as a viable cutting-edge research institute.

In summary, the adoption of innovation and improving productivity are key opportunities for the UK economy to address. The importance of investment on R&D sites across the Kent & Medway region has already demonstrated that appropriate investment in the innovation ecosystem can catalyse and support economic activity. The role that horticulture can play in this area is significant and represents a key opportunity for the Kent & Medway area, particularly where there is the potential for high cross over of innovation from other (recently supported) high-tech industries into the agriculture sector.

2.8. Objectives of intervention:

The East Malling Trust has a Strategic Masterplan to develop a new cutting-edge Innovation Campus for Horticulture at East Malling. The campus will provide state-of the-art facilities for innovative R&D to support business creation and growth in what it is the UK's leading horticultural growing region.

The intervention being proposed here is to invest in improving the R&D infrastructure to encourage the further uptake of R&D services by horticultural businesses. In this specific case, the LGF investment is required to improve the capacity and capability of plant growing facilities at NIAB EMR and to unlock future follow-on investment in the region. The Innovation Campus will secure

the long-term delivery of world-class research, innovation and knowledge exchange for the UK horticultural industry.

Project Objectives

***Objective 1**:* Unlock the East Malling Estate for future investment and development so that the Innovation Campus (including the planned Horticulture Zone) can be realised as the UK's focus of excellence for the horticultural sector.

***Objective 2**:* Install the primary infrastructure to service the new Horticultural Zone in the immediate to long-term.

***Objective 3**:* Construct the infrastructure to house the **energy centre** which in future will enable the deployment of low-carbon technologies. This will improve sustainability and reduce environmental impact in horticultural research and innovation.

***Objective 4**:* Construct new state-of-the-art plant growing facilities that will enable new technologies and production systems to be developed, commercialised and demonstrated as best practice to the industry.

Problems or opportunities the project is seeking to address

***Opportunity 1**:* Horticulture will play an important role in tackling global challenges that we currently face - feeding a growing population with nutritious plant-based food and making use of fewer resources. Adoption of innovative technologies and production systems offers key opportunities for increasing horticultural productivity while minimising environmental impact (sustainable intensification). This in the context in which the UK is a net importer of fresh produce (**50%** of vegetables and **80%** of the fruits consumed in the UK are imported).

***Opportunity 2**:* Horticulture has a major contribution to make towards the health and well-being agenda. The role of diets that contain a significant intake of plant-based nutrients in disease prevention and healthy ageing is increasingly understood, as are their contribution towards a healthy and productive society. New R&D in the horticultural sector will improve the nutritional value and quality of fruit and vegetables available for the national population.

***Problem 3**:* Attracting funding will become increasingly difficult and NIAB EMR's ability to provide the R&D and knowledge exchange support that will allow the UK industry to remain world-class, competitive and environmentally 'responsible' will diminish over time without access to world class facilities. Investment in facilities will improve the capability when bidding for new public funded R&D work in the sector.

***Problem 4**:* The capacity for other horticultural and high-tech businesses to conduct R&D, innovation and commercialisation activities in the region will also be constrained without access to world class facilities. This is recognised as a current "**market failure**". Investment in modern and relevant facilities will provide the incentive for more commercial spend on R&D in the sector and for high-tech industries to test and evaluate their innovations as they spill over into the horticultural sector.

***Opportunity 5**:* The region is suffering from a 'shrinking' pool of high-skilled labour. Ensuring the continued success of NIAB EMR as an internationally recognised centre of excellence will help to attract highly-skilled workers to the region and will also act as a driver for the delivery of high-quality training in the region to meet the needs of a flourishing horticultural industry.

	Problems / opportunities identified in Need for Intervention section				
	Opportunity 1	**Opportunity 2**	**Problem 3**	**Problem 4**	**Opportunity 5**
Objective 1 - Unlock the East Malling campus for future investment and development	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Objective 2 - Install the primary infrastructure	✓	✓	✓	✓	✓
Objective 3 - Construct a low-carbon energy centre	✓	✓	✓	✓	✓
Objective 4 - Construct new state-of-the-art plant growing facilities	✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓

2.9. Constraints:

There are no significant social or environmental constraints that impact on the suitability and deliverability of the Preferred Option. However, the two main constraints that could impact on the Preferred Option are both financial and legal in nature.

The main financial constraint is on the failure to secure the LGF grant funding and the failure of the East Malling Trust to have completed the necessary land sales for residential development to generate the funds to support the construction phase of the project. The recent approval of planning consent for one of the plot destined to residential development mitigates the second risk.

Planning approval for the Horticulture Zone was also granted in 2019 removing another potential legal constraint.

2.10. Scheme dependencies:

The major co-dependency of this project is the grant of planning permission for 410 residential houses in the Borough of Tonbridge and Malling. Grant of planning permission will maximise the value of the land sales, the receipts of which, will be used to fund this project. To date planning has been granted for 1 of the 2 sites (110 units). This site went to market in March but has subsequently been withdrawn due to the Covid-19 situation. Site 2 has no holding objections and is due to go to committee with a recommendation for approval. Unfortunately, we do not have a definitive date as TMBC have not confirmed a timetable or method of holding Planning Committee

meetings during this period of lockdown. Since this submission Tonbridge & Malling Council are now proposing site 2 comes forward to committee in June or July. Recent guidance changes including the opening of construction sites has a positive trajectory for the marketing of Site 1, with September likely to be the target date for re-launch. Site 1 is valued at £7m-£10m. Site 2 £17m-20m

2.11. Expected benefits:

The project proposed here will deliver a series of specific Outputs which are described in section 6.9 of the Management Case, summarised in the Logic Model and quantified via a series of Key Deliverables in Appendix D (in the Gantt chart).

In addition, we have identified a wider range of **Benefits (Outcomes/ Impacts)** that go beyond the deliverable Outputs of the project. We have similarly referred to these project Outcomes/ Impacts in section 6.9 of the Management Case and the Logic Model. A number of these benefits would not be valued in the Economic Case so are described below.

1) Creation of a de-risked environment that will unlock future (Phase 2) follow-on private sector investment in the Horticultural Zone, specifically:

   - New glasshouses and header building for Driscoll's Genetics Ltd. This company have previously indicated a desire to grow their business on the East Malling site by the construction of new glasshouses and header building. These works with a size of 2,744m2. These proposed works have recently (May 2018) secured planning consent from Tonbridge & Malling Borough Council.

   - In addition to the phase 1 glasshouse of 1,200m2, NIAB EMR would replace their entire existing glasshouse facilities with a suite of modern glasshouses in the new Horticultural Zone.

   - The combination of both these follow-on investments represent a significant investment in the region that would be enabled by the completion of the project proposed here. Specifically, it is the risks and high costs of installation of the new infrastructure services (utility supplies, drainage, ground works) and low-carbon energy centre that otherwise create a significant disincentive to future investment on the site.

2) Assuming the completion of the totality of the glasshouse buildings, the demolition and clearance of the existing glasshouses would, subject to further design work and planning approval, facilitate the wider development (and future capital investment in new buildings) of the EMT Innovation Campus. The costs of these investments have not been determined to date.

3) Finally, the other main Economic benefits of the project that arise from the expanded and enhanced facilities include the ability of NIAB EMR to undertake cutting edge research, innovation and Knowledge Exchange in support of the UK's horticultural sector. This will result in:

   - Increased ability to attract public grants and funding for research, innovation and knowledge exchange activities. This is estimated at **£420k** per annum, a total of **£1.68m** over 4 years.

   - Increased private sector work commissioned in state-of the-art facilities, as a result of the increased capacity available for other businesses to conduct research,

innovation and commercialisation activities. This is estimated at **£150k** per annum, a total of **£600k** over 4 years.

- Increased dissemination of best practice knowledge exchange and skills development for the wider horticultural industry, which in turn increases demand for the provision of high-quality training in the region (**100 trainees**) and creates **150** new jobs across the sector, that help to off-set the predicted decline of 400 jobs in the sector (Kent & Medway Workforce Skills evidence base, 2015).

2.12. Key risks:

A proactive risk management procedure is in operation, including an assessment approach, which ensures that risks are continuously identified, owners assigned and mitigation measures put in place. The Risk Register includes items related to the delivery of the scheme and benefit realisation.

Regular reviews will check the status of each risk and monitor their control and mitigation.

The key risks which will affect delivery of the scheme and benefit realisation are highlighted below:

- **LGF funding is not forthcoming**. If LGF funding is not awarded, it will not be possible for either NIAB EMR nor the East Malling Trust to deliver this project.
- **East Malling Trust funding is delayed.** If funding from land sales for residential development is delayed, this will impact on the delivery of the construction phase of this project. Recent planning approval has reduced the likelihood of this risk.
- **NIAB EMR fails to attract projects and other investment**. If NIAB EMR cannot attract projects funded by the public and private sector the project will not delivered against one of its key benefits.

Management of risk will be an ongoing process throughout the whole project under the responsibility of the Project Director reporting to the Project Board.

3. ECONOMIC CASE

The economic case determines whether the scheme demonstrates value for money. It presents evidence of the expected impact of the scheme on the economy as well as its environmental, social and spatial impacts.

In addition to this application form, promoters will need to provide a supporting Appraisal Summary Table (AST). This should provide:

- *a calculation of Benefit-Cost Ratio (BCR) according to the DCLG Appraisal Guidance, with clearly identified, justified and sensitivity-tested assumptions and costs*
- *inclusion of optimism bias and contingency linked to a quantified risk assessment*
- *inclusion of deadweight, leakages, displacement and multipliers*

Smaller schemes (less than £2 million) are not required to provide a supporting AST, and do not have to calculate a BCR.

3.1. Options assessment:

Long list of options considered

The East Malling Trust is one the leading private funder of horticultural research in the UK. Over recent years the Trust has been considering how to deliver its main charitable objective (the advancement of science for public benefit, primarily through the support of research and development, particularly in the fields of horticultural and other plant based disciplines) with the aim of maximising its impact based on more rigorous utilisation of its physical asset base and resources. It is recognised that the facilities provided to **NIAB EMR**:

- are increasingly ageing, beginning to lack "fitness for purpose";
- are becoming inefficient and ineffective for current operational requirements;
- do not have sufficient capacity for growth in scientific operations;
- do not provide the workflows and adjacencies that are required for modern research; and
- have suffered from decades of under investment.

The East Malling Trust has commissioned with the help of experienced professionals (architects, QS and engineers) a work to consider a range of **options** for the future of the East Malling Estate that includes:

1) Do nothing and carry on with business as usual;

2) Stop adding new buildings and plant growing facilities to the current East Malling site and look for alternative sites to buy/ rent to support NIAB EMR;

3) Add new buildings and plant growing facilities to the existing campus at East Malling, working around the existing buildings;

4) Develop a site Master Plan to re-provide business-critical scientific facilities but not consider the non-science and cultural facilities;

5) Embark on a planning exercise including the development of a Master Plan that considers the whole of the estate but attempts to integrate the different functions in a phased approach to development.

6) Embark on a planning exercise including the development of a Master Plan that starts with a "blank piece of paper" and redesigns the site layout entirely.

7) Sell the site and move to a new location to carry out its scientific functions.

Options assessment

In evaluating the long list of options, a framework was used to guide this analysis, based on the Suitability, Acceptability and Feasibility of the option in question:

- **Suitability** - whether or not the option(s) will meet the Trust requirements.
- **Acceptability** - measuring the returns (financial and non-financial), risks and stakeholder reactions resulting from a particular option.
- **Feasibility** – assessing whether the option will work in practice and whether or not the East Malling Trust has (or can get access to) the resources, aptitude and abilities to implement the selected option.

Set against the various challenges and opportunities presented earlier, many of the options identified were considered unsuitable or unacceptable, either being considered as unaffordable, too slow and time consuming, or would potentially become a major distraction from delivering urgently needed research activity at such a critical time in the UK's drive to improve productivity. In addition, many of the options did not provide the improved sustainability that the organisation requires for the future. Last but not least many of the options were also considered unacceptable for a key research organisation that is part of the wider NIAB Group - the UK's fastest growing crop science organisation - that has trebled in size over the past decade through a strategic programme of investment, merger and acquisition.

Short list of options

A key intention of the NIAB Group is to develop their sites and bring other organisations and companies onto their sites to co-invest and collaborate. Such an approach, in building strategic alliances, has the capacity to extend the organisation's reach, profile and scale. This approach has been developed extensively by NIAB in Cambridge and has also been an integral part of the East Malling site activities over many years.

On this basis, the preferred options include remaining on the East Malling Estate and building on the heritage, reputation and regional strengths that are well recognised and reflected in Local Authority plans (including the current draft of the SELEP Industrial Strategy) and visions for economic development. On this basis three options were considered further:

Option 3. Add new buildings and plant growing facilities to the existing campus at East Malling, working around the existing buildings;

Option 4. Develop a site Master Plan to re-provide business critical scientific facilities but not consider the non-science and cultural facilities;

Option 5. Embark on a site Master Plan exercise that considers the whole of the estate but attempts to integrate the different functions, in a phased approach to development.

All three options were considered by the Trust as it evaluated the preferred route to develop a new cutting-edge Innovation Campus for horticulture at East Malling.

3.2. Preferred option:

Option 5, a site Master Plan exercise that considers the whole of the estate but attempts to integrate the different functions, in a phased approach to development, was identified as the preferred option for further development. The professionals team including an architect firm, the East Malling Trust and NIAB EMR staff evaluated a range of layouts and phasing strategies that have been captured in a Master Plan for the development of the EMT Innovation Campus. Initial development studies considered radial, linear and centric designs; working with the site's specific physical characteristics, access constraints, and its natural and cultural assets. A radial alignment expanding from existing core was selected as being the most appropriate for the following reasons:

- Clear arrival sequence and reception point
- Easier wayfinding around the site
- Potential to separate visitors and staff away from horticultural vehicle traffic
- Creates a recognisable core to the campus
- Creates opportunity for an anchor building
- "Science on display" can be more easily achieved by showcasing fields and demonstration areas
- Preserves the heritage of the site in some specific buildings
- Consolidates accommodation for on-site scientists

The aim of the proposed scheme is to develop a central "Innovation Centre" that encompasses a circular arrangement of science, non-science and cultural zones around a central reception area. The circular site would be adjacent to "show-case" fields, where science could be displayed in practice and a Horticultural Zone would be located to the north east of the main campus. The Horticultural Zone would comprise glasshouses, poly-tunnels and other plant growing facilities arranged in a format to maximise efficiency and effectiveness of operations.

The first phase of this master plan is the project proposed here, the relocation and development of state-of-the-art plant growing facilities at the East Malling site in a new Horticultural Zone. The outline concept shows the proposed layout of this zone following completion of the project and full benefits realisation, primarily follow-on private sector investment.

In summary, the preferred option is an integral part of the development of the strategic Master Plan for the 550-acre estate. Recognising the funding requirements of such a scheme, the East Malling Trust are bringing forward two plots of land no longer required for field trials for residential development to support Tonbridge & Malling Borough Council's objectively assessed housing needs. One of which has already been granted planning approval. The sale of this land which will result in the delivery of 410 new homes, will provide the receipts necessary for reinvestment in this project.

3.3. Assessment approach:

The development of the advanced technology Horticultural Zone is the first step towards achieving the long-term vision to develop a modern Innovation Campus at East Malling. By completing this project it will both re-provide and expand critical plant growing facilities but more importantly, unlock the East Malling Estate for future follow-on investment and development.

The **Strategic Case** for the investment has already been made in section 2 including a clear definition of the tangible deliverables (Outputs) from the project and the wider benefits (Outcomes/ Impacts) that would be transformational for the site and region. These wider benefits have been quantified in the Strategic Case and they are not included in the Economic Case presented here.

The Economic Case is concerned with assessing the economic value of the proposed scheme to society taking account of a wide range of social and environmental considerations. The narrative presented here has summarised the options appraisal process that has been undertaken by the East Malling Trust and NIAB EMR to date. The proposal arising from this process, delivers the best value to the Trust in support of its charitable objectives and also to the wider society considering some of the current challenges facing the world.

As the grant requested is under £2 million, we have not undertaken a fully quantified economic appraisal with a detailed Benefit to Cost Ratio (BCR) analysis. However, following the principles from the DCLG Appraisal Guidance and the HM Treasury Green Book we have **carried out a qualitative assessment of three scenarios** – Business As Usual (BAU, the counterfactual scenario), the "preferred option" and the "fully enabled option"– to enable us to make a statement concerning the Value for Money rationale. **We have also carried out a BCR analysis of the direct benefits (Outcomes) of the "preferred option" as described below**.

These scenarios are as follows:

- Under the BAU scenario we consider the impact of the existing plant growing facility (circa 3,213m2 of glasshouses) long established on a previous green field site. No further expansion in glasshouses is planned at the infrastructure on site cannot support them.

- Under the "preferred option" scenario we maintain the existing facility of 3,213m2 and we construct the 1,200m2 of new glasshouses in the new Horticultural Zone (Phase 1 of the proposed project). **This represents the situation that would exist in May 2021 at the end of proposed project**.

- Under the "fully enabled option" we consider the construction of the proposed project (Phase 1) together with the full Benefit Realisation programme achieved. This includes the follow-on investment by both Driscoll's and NIAB EMR in additional glasshouses and header buildings (phase 2).

In carrying out this assessment, we feel the BAU scenario represents a realistic situation if the proposed project does not go ahead. The **"preferred option**" scenario represents the project that we are seeking investment towards. We have included the **"fully enabled option"** to highlight the economic impact of achieving the full benefits of phase 2 that will have been enabled by the delivery of the proposed project. The results of this assessment and comparison are presented in section 3.8.

3.4. Economic appraisal assumptions:

Smaller schemes (less than £2 million) are not required to complete this section*].*
These are the assumptions used in the BCR analysis of direct benefits (Outcomes).

Appraisal Assumptions	Details
Discounting	3.5% standard rate
Additionality	For the jobs created – 10% displacement and 10% leakage were considered in the analysis.
Appraisal period	10 years (2022-2032)

3.5. Costs:

Not applicable for this scheme as a quantified economic appraisal is not required.

3.6. Benefits:

For the **BCR** analysis we focused the assessment on the direct benefits (Outcomes) of the project:

- Creation of **14** new jobs (at a typical GVA/per job of **£40k,** with the assumption of a 10% leakage and 10% displacement).
- Investment of public sector grant funding at **£420k p/a.**
- Investment of the private sector at **£150k p/a.**

Over an assessment period of 10 years (from 2022-2032) the BCR analysis at a typical annual discount rate of 3.5% results in a **BCR** of **2.61:1.** This analysis also assumed a ramp-up of these outcomes that will see the full realisation of the benefits in 2025.

A detailed economic appraisal is not required for this project as the required grant funding is under £2m.

3.7. Local impact:

Not applicable for this scheme as a quantified economic appraisal is not required.

3.8. Economic appraisal results:

Whilst a quantified economic appraisal is not required, our qualitative assessment of relevant DCLG costs and benefits is presented below. A **BCR** analysis of the Outcomes of the preferred option (Option 2) has been carried out yielding a value of **2.61:1** over an assessment period of 10 years.

DCLG costs and benefits	**Option 1 - Do nothing. BAU.** **3,213m2 existing GH**	**Option 2 – Preferred option (phase 1 only)** **3,213m2 existing GH + 1,200 m2 in new Hort Zone**	**Option 3 – Fully enabled option (phase 1&2)** **new GH + demolition of old GH's**
Opportunity cost	Assets and resources used to grow plants for R&D purposes	Comparable to option 1	Comparable to option 1
Productivity	Ongoing as operations continue to use glasshouses	Improved due to 100% increase in capacity	Improved further due to additional capacity and use of more labour
Economic transfers (tax and NI)	Glasshouses used for research work and associated staff pay tax and NI contributions	Increased capacity leads to more work, more staff employed, more tax and NI paid	Improved relative to option 2. With more Knowledge Exchange activities and more jobs in wider industry

Land value	No change other than adjustment due to market forces	Installation of services has increased value relative to option 1	No further increase in value compared to option 2
Asset maintenance costs	Costs expected to increase as facilities age over time.	Comparable to option 1 for existing facilities. New GH has lower maintenance costs than current GH's	Significant reductions compared to option 1 and 2
Infrastructure	No change to existing supplies	Requires new supplies to be installed. Has a negative impact on the network? Unlikely.	Comparable to option 2
Greenhouse Gas emissions	GHG emissions could be estimated for the current site operating off the oil fired energy centre.	The GHG emissions would be comparable for the existing GH in option 1. We would expect the GHG emissions to be lower for the new build GH operating off the new energy centre.	We would expect the GHG emissions to be lower as a result of the new energy centre (low-carbon technologies wil be fully enabled).
Energy efficiency	Energy use is currently oil	Energy use would be oil plus gas sources in the new energy centre	Energy use would only be low-carbon fuel sources in the fully enabled energy centre
Natural capital	Glasshouses built on old arable fields	Comparable to option 1	Comparable to option 1
Biodiversity	Assumed to be low at present	Comparable to option 1	Comparable to option 1
Noise pollution	Very little noise pollution at present	Comparable to option 1	Comparable to option 1
Light pollution	GH's have lights but no black-out blinds. There is an impact on environment.	Existing GH's comparable to option 1. New GH would have black-out blinds.	All GH's would have black-out blinds. Improved situation.
Water use	Water usage could be measured	Comparable to option 1 for existing GH's. Improved in new GH.	Water use should be more efficient with improved irrigation.

Travel time for staff	This could be measured	Comparable to option 1	Comparable to option 1
Risks to life & health	none	none	none
Unmonetised costs & benefits	None identified	None identified	None identified

On the basis of the qualitative analysis presented above, the beneficial improvements have been highlighted in bold. Option 2 offers a number of improvements over the Business As Usual option:

- Productivity
- Tax and NI payments
- Increased land value due to installation of utility infrastructure and services

The improvements are more considerable if the Phase 2 is completed, particularly for reduced greenhouse gas emissions and reduced energy usage once the existing glasshouses are decommissioned. This will only be possible if phase 1 is completed.

The assessment shows that the proposed project does offer Value for Money compared to the current situation. The development of an advanced technology horticultural zone at East Malling will be the critical catalyst for much needed investment in the research and innovation environment that underpins the region's horticultural sector. Without this project, EMR's ability to deliver significant benefits to the region's economic growth, rural employment and skills agenda will be curtailed.

4. COMMERCIAL CASE

The commercial case determines whether the scheme is commercially viable and will result in a viable procurement and well-structured deal. It sets out the planning and management of the procurement process, contractual arrangements, and the allocation of risk in each of the design, build, funding, and operational phases.

4.1. Procurement options:

There are many different forms of procurement available for the design and construction of buildings. Deciding on the most appropriate procurement route for any project must suit the Client's objectives such as time, cost, quality and risk.

Below is a list of the three most commonly used procurement routes in the industry: -

- Traditional
- Design and build
- Management contracting

Traditional approach

A traditional procurement route provides the Client with a fully detailed design at the time of tendering, retention and control of the design and quality and cost certainty, however, does not allow for accelerated commencement of the works and the majority of the risk remains with the Client.

Traditional procurement should be proposed on schemes where cost and quality are the Client's main objectives but where time restraints and reduction of risk are not fundamental requirements.

Design & build approach

A design and build procurement route may gain initially higher prices than a traditional contract due to the inclusion of risk premiums, design and build enables the works to begin earlier than traditional routes as design and construction can overlap. It also provides a single point of responsibility, however, the Client loses his control on the design and quality control throughout the process.

Design and build procurement should be proposed on schemes where time constraints, cost certainty and reduction in risk is required but where control of the design and quality are not fundamental requirements.

Management contracting approach

A management contracting route may enable the works to begin earlier than traditional routes as design and construction can overlap and enables the Client to control design and quality as the designers are retained throughout, cost certainty is very low as only preliminaries and the management fee are fixed prior to works commencing and works packages costs are gained throughout the construction and risk to the Client is high.

Management contracting procurement should be proposed on schemes where time constraints and quality control is required but where cost certainty and risk reduction are not fundamental requirements.

4.2. Preferred procurement and contracting strategy*:*

We have reviewed the above options against East Malling Trust's requirements and objectives for this project and analysed the advantages and disadvantages of each route against these objectives.

We recognise that the critical factors for this project are programme and cost and whilst control on design and quality are important to the successful completion of this scheme, completing on time and within budget are higher priorities.

For these reasons, we have decided our preferred procurement strategy to be a **Design and Build (D&B)** route. This will enable Works to commence on site as early as possible whilst gaining a fixed price lump sum in order to provide cost certainty.

Programme under a D&B route

A design team is currently being formed but is still in its infancy. Under the funding criteria, we note that firm prices are required to be confirmed by the end of **June 2020** with all funds being spent by the end of **March 2021**.

We detail below our proposed programme under a **D&B** procurement route which will achieve the above requirements:

Description	Period	Start	Complete
Form design team	3wks	2nd March 2020	20th March 2020
Prepare and develop project brief	4wks	23rd March 2020	17th April 2020
Prepare Employer's Requirements and Tender Documents	2wks	20th April 2020	1st May 2020
Tender Period	4wks	4th May 2020	29th May 2020
Tender review and award period	3wks	1st June 2020	**19th June 2020**
Contractor's Design & Lead-in period	8wks	22nd June 2020	14th August 2020
Construction period	16wks	17th August 2020	**4th December 2020**

As the level of design required to tender the scheme under a design and build route is only required to be concept, with detailed design being undertaken by the appointed contractor, the period from inception to contractor award can be greatly reduced, meaning that we can achieved our required firm price date of end of **June 2020**.

Cost under a D&B route

As well as providing an accelerated upfront programme, the design and build route also provides cost certainty in form of a fixed price lump sum. Cost changes can only occur when Change Control instructions are provided we want to vary the design. Any changes borne through the development of the initial design into construction drawings will be borne by the contractor, giving even further cost certainty to us.

Form of contract

With this form of procurement, we have elected to use the JCT Design & Build Contract 2016. Modus, are experienced in this form of contract and shall be administering this contract on our behalf.

The proposed contract will comprise the above JCT, the Employer's Requirements, the Contractor's Proposals, a Contract Sum Analysis and other specific requirements set by us including the provision of collateral warranties and bonds.

4.3. Procurement experience:

Experience

Modus Construction Consultants are acting as our Project Manager, Employer's Agent and Quantity Surveyor and so will be leading this process on our behalf. Modus has over **60 years'** combined experience in the managing and administering of construction projects with schemes ranging from £50,000 to £15,000,000.

Over the last 7 years, Modus has successfully completed over 60 projects with a combined value of over £74,000,000. All of these projects have been completed under the JCT form of contract, many of which specifically using the JCT **Design & Build Contract**.

Lessons Learnt

Robustness of the ER's – It is imperative for any D&B project that the Employer's Requirements fully define the Client's requirements. This includes minimum room standards and sizes, specifications of finished products, phasing, restrictions and the like. Modus recommend early engagement with the designers and Client to discuss any specific requirements that must be met to ensure they are included within the ER's at tender stage.

Discrepancies between the CP's and the ER's – It is important to ensure that any discrepancies between the **Employer's Requirements** and the **Contractor's Proposals** are removed prior to entering into contract. If there is a difference between the two documents, a meeting should be held to agree which proposal is correct and the incorrect proposal should be removed

Technical Advisor – We have seen huge benefit on past projects where the Client's designers are novated to the contractor, for the Client to employ technical advisors that review the contractor's design drawings to ensure they meet the ER's as works progress rather than relying solely on the contractor's design team

4.4. Competition issues:

When tendering this project, we shall be giving an opportunity to assess a minimum of three contractors. This will ensure we receive like-for-like competitive bids from all bidders.

We expect each tenderer to individually tender each works package to their supply chain with a minimum of three tendering for each package. This further ensures pricing is kept competitive.

Due to the nature of the works, the glasshouse, being a mainly specialist package, there are only a limited number of contractors that undertake this work in the UK. We therefore aim to open this up to the European market where there are further contractors that can undertake this type of work to again keep pricing competitive.

The contract shall be awarded on the basis that competitiveness and value for money are the main reasons for awarding to a certain party.

4.5. Human resources issues:

EMT and NIAB EMR have a team of **senior staff** as the overseeing steering group, this ensures more than one person has oversight of the project at any one time. The appointed QS/ Project managers Modus, are an SME with two working directors and a support team of six employees. The structure of our business enables us to have considerable control over the projects we commit to which allows us to be more flexible for our clients than perhaps larger corporate consultancies.

As a team, we undertake weekly resource reviews to ensure that all existing and forthcoming projects are resourced appropriately so that we meet our client's deadlines and expectations. By undertaking these meetings, we are able to ensure that our staff are not overloaded which guarantees that we are able to perform at an optimal level.

In addition to our weekly reviews, we hold, and continuously update, a Project Resource Sheet that details the availability of each team member. These highlight each employee's workload from current date and looks forward over a 12-month period. The information held in these records assists us to monitor and review our workload and enables us to access our availability to resource all projects.

we would assign a director to any project awarded throughout its lifecycle, ensuring that appropriate resource is apportioned to the project at all times. Modus will ensure that the team allocated to this project will have the right capabilities to undertake what is required of them. As an SME, the Directors have a full understanding of each of its' employees' strengths, weaknesses and previous experiences, this enables us to select the most appropriate members of staff to this project.

4.6. Risks and mitigation:

Risks around the Planning application no longer apply as planning as been granted. The East Malling Trust owns the freehold of the land so there are no risks around land acquisition. Environmental requirements and statutory services issues have been identified and necessary surveys carried out. The primary risks will be related to construction. The East Malling Trust have made an upfront financial commitment to the project and have appointed an independent Project Manager/ Employers Agent and Quantity Surveyor to provide expert advice and formulate a project

delivery plan for the successful delivery of the scheme. Further to this advice, The East Malling Trust have made further financial commitment in undertaking the following surveys/reports/quotes; topographical, ground investigation, UXO, drainage and utilities. In addition, we have developed a detailed and robust design and specification/employers' requirements document; including architectural plans, structural and civil engineers outline proposals for site works & drainage and early engagement with a specialist glasshouse contractor to seek advice on buildability and specialist installations.

It is the intention that these documents, together with other documents prepared by the Project Manager, will form the full set of tender documents which will be tendered on a Design & Build procurement route. The benefits of using Design & Build over a traditional route is:

- advantageous in terms of time as it allows the overlap of design and construction reducing the overall project delivery time
- there is a single point of responsibility for the client to deal with once the contract is awarded
- the client is able to engage with the contractor and their design team or supply chain earlier in the design process to try and achieve a more practical or buildable solution if necessary
- in terms of cost, it allows the client a certain amount of control as the contractor generally agrees to take on responsibility for the design and construction for a pre-agreed price. This means that the contractor takes on much of the financial risk.

Through the upfront surveys, reports and design work and the form of procurement we are proposing to use, the project risks are minimal.

4.7. Maximising social value*:*

Our tendering process is based not only on cost but also on the contractor's quality submission against set questions. One question we include is based upon Social Value and what the contractor will improve the economic, social and environmental wellbeing of the local area and local business. We may declare that bidding contractors must have at least 50% of their on site labour come from within a 30 mile radius of site and that contractor must tender each sub-contract package to 1 out of 3 local companies.

5. FINANCIAL CASE

The Financial Case determines whether the scheme will result in a fundable and affordable Deal. It presents the funding sources and capital requirement by year, together with a Quantitative Risk Assessment (QRA), project and funding risks and constraints. All costs in the Financial Case should be in nominal values[1].

The profile of funding availability detailed in the Financial Case needs to align with the profile of delivery in the Commercial Case.

5.1. Total project value and funding sources:

The total project value is **£5,043,300**.

This will be funded through three funding sources – East Malling Trust (EMT), NIAB EMR and the LGF grant.

The split by funding source is shown below in the table along with comments on the flexibility of the profile and key constraints or dependencies.

Funding source	Amount (£000)	Flexibility of funding scale or profile	Constraints, dependencies or risks and mitigation
East Malling Trust	271.0	Design, survey and planning application.	First phase of project. No constraints to delivery. Planning consent was secured in November 2019.
LGF	1,750.0	Construction phase.	Risk in grant not being secured or being awarded too late to complete project by 31 March 2021.
East Malling Trust	2,922.3	Construction phase - Utility infrastructure works, energy centre & glasshouse	Dependent on LGF award before decision to proceed. Risk of delay in funding availability from land sales for residential development. Sale has been put on hold due to the Covid-19 outbreak. East Malling Trust can secure a commercial loan against the Estate's assets to bridge a potential funding gap.
NIAB EMR	100.0	Investment in equipment and fit-out of new facilities	Dependent on facility being constructed.
Total project value	**5,043.3**		

The split by year is shown below in the table in section 5.5.

[1] Nominal values are expressed in terms of current prices or figures, without making allowance for changes over time and the effects of inflation.

5.2. SELEP funding request, including type (LGF, GPF, etc.,):

The funding is required from the Local Growth Fund. The grant requested is **£1,750,000.**

In the case of this grant application, state resources are involved as the project will be funded by the Local Growth Fund (via SELEP). As a result, this project will be fully compliant with State Aid Regulations and procurement procedures.

Guidance on State Aid Regulations has been followed in preparation of this project application. Legal advice is being sought on the General Block Exemption Regulation using the English Research, Development and Innovation State Aid Scheme, specifically Investment aid for research infrastructures/ Aid for innovation clusters. This risk is included in the Risk Register in Appendix C.

5.3. Costs by type:

	Expenditure Forecast				
Cost type	**17/18** **£**	**18/19** **£**	**19/20** **£**	**20/21** **£**	**Total** **£**
Capital [utility services installation]	0	0	0	554,904	554,904
Capital [facilitating works]	0	0	0	102,760	102,760
Capital [substructure]	0	0	0	117,400	117,400
Capital [construction]	0	0	0	3,238,804	3,238,804
Capital [consultant fees]	0	0	0	171,030	171,030
Capital [site works]	0	0	0	478,568	478,568
Risk allowances/ Inflation (%)	0	0	0	379,881	379,881
Total funding requirement					5,043,347

Costs of monitoring & evaluation have been included in consultant fees. We have a full Riba stage 2 cost estimate provided by our QS (summary goes attached). The construction of the energy centre and glasshouse does not require special design and can be delivered within the clear boundaries of a pre-determined budget. If we apply an optimism bias adjustment of 10% to the total project cost (i.e. estimated cost of £5.58m) we will still be able to secure from a sponsor to cover the potential shortfall. The proposed figure of 10% is based on the Green Book Suplementary Guidance for “Standard Buildings” – which is within the 2-24% range.

5.4. Quantitative risk assessment (QRA):

Document with QRA is attached in a separate file. Following the escalation of the Covid-19 situation we have further considered the risk caused by Covid-19.

All contractors are now back on site and working productively whilst following the Construction Council's guidelines on social distancing and best practices. The vast majority of contractors are used to overcoming challenges and with each week they are developing and evolving their working methods to maintain productivity.

As this is now a known risk, the contractors will be expected to make allowance in their programme for any impact that the new working practices will have on their construction periods and therefore this will be accounted for in their tender/ contract.

In terms of the impact on the project, if a national shutdown does happen again, then at worst it will impact the completion date but not necessarily the cost. We will be implementing new contract conditions, which will be included in the tender documents, to clearly set-out the contractual process for such an event and set-out that costs are absorbed by the contractor.

In terms of material procurement, again this will only really be impacted if there is a national shutdown. Manufacturing is being treated like construction, they can't work from home so are back to work. In the last 6 weeks we have seen some difficult in procuring certain products, such as plaster and cement but this was because the quarry's and furnaces shutdown. Things are slowly returning to normal on this front.

Where certain elements, such as the glasshouse frames, are manufactured/fabricated off-site and simply erected on site, the contractor will again need to allow in their programme and procurement strategy for any additional time that is now required because of Covid-19 restrictions.

5.5. Funding profile (capital and non-capital):

	Funding Forecast					
Funding source	**17/18 £000**	**18/19 £000**	**19/20 £000**	**20/21 £000**	**21/22 £000**	**TOTAL £000**
East Malling Trust (design & planning)			236,600	34,400		271,000
East Malling Trust (construction)				2,922,300		2,922,300
Local Growth Fund (construction)				1,750,000		1,750,000
NIAB EMR (fit out & commissioning)					100,000	100,000
Total funding requirement			236,600	4,706,700	100,000	**5,043,300**

As the project progresses the programme will be reviewed and updated as required. Our current programme is summarised below and presented in the GANTT chart in Appendix C.

Activity	Duration (months)	Start	Conclude
Design works and development of planning application	6	Nov 2018	April 2019
Planning application determination period	5	May 2019	Sept 2019
Contractor(s) procured, contract let and mobilised	6	March 2020	August 2020
Infrastructure service works	3	September 2020	November 2020
Construction works	6	October 2020	March 2021
Fit-out works	3	March 2021	June 2021
Facility commissioned/ operational		June 2021	

There is no cost or difficulty in the land acquisition process for the delivery of this project, as the land will be provided by the East Malling Trust.

As the funding profile for this project runs until the end of the LGF funding period, there is some flexibility in the precise date for the start of the construction phase and hence the construction spend profile. Delivery of this project is programmed to be complete by June 2021.

The benefits realisation monitoring phase will extend beyond the LGF funding period from 1 December 2021 to 1 December 2025 (a four-year period). NIAB EMR will fund the monitoring and evaluation required to establish the effectiveness of the scheme, as presented in section 6.10. The costs of this have been included in the figures shown above. Costs through to 31 March 2025 would be borne by NIAB EMR.

5.6. Funding commitment:

Throughout the project programme the project budget and estimated costs will be constantly monitored by the Project Director and Project Board, to identify any risk of potential cost overruns. Wherever possible action will be taken to reduce or eliminate this risk.

We confirm that any cost overrun will be the responsibility of the East Malling Trust and NIAB EMR.

A signed assurance from the Section 151 Officer is yet to be provided.

5.7. Risk and constraints:

A proactive risk management procedure will be operated, including a risk assessment approach, which ensures that risks are continuously identified, owners assigned and mitigation measures put in place. The Risk Register includes items related to project cost and funding risk.

Regular reviews will check the status of each risk and monitor their control and mitigation. The key funding risks currently associated with this project are highlighted below:

- LGF funding is not forthcoming – if LGF funding is not awarded for the delivery of this project, it will not be possible for NIAB EMR to deliver this project.

- East Malling Trust funding is delayed – if East Malling Trust funding from the sale of land for residential development is delayed, this will impact on the delivery of the construction phase of this project.

- If LGF funding is awarded late then project delivery could be constrained by the funding period available.

At this stage of the design process there is an element of uncertainty regarding the costs associated with both the utility services installation and the construction costs associated with the project. This is due to the early stage of design and discussion. These risks have been taken into account in the initial QRA provisions outlined in section 5.4.

Management of risk will be an ongoing process throughout the whole project under the responsibility of the Project Director reporting to the Project Board.

6. MANAGEMENT CASE

The management case determines whether the scheme is achievable and capable of being delivered successfully in accordance with recognised best practice. It demonstrates that the spending proposal is being implemented in accordance with a recognised Programme and Project Management methodology, and provides evidence of governance structure, stakeholder management, risk management, project planning and benefits realisation and assurance. It also specifies the arrangements for monitoring and evaluation in terms of inputs, outputs, outcomes and impacts.

6.1. Governance:

The Project Sponsor is the East Malling Trust as they are the landowner responsible for the development and delivery of the Innovation Campus Development Plan, within which this project is the first and enabling phase.

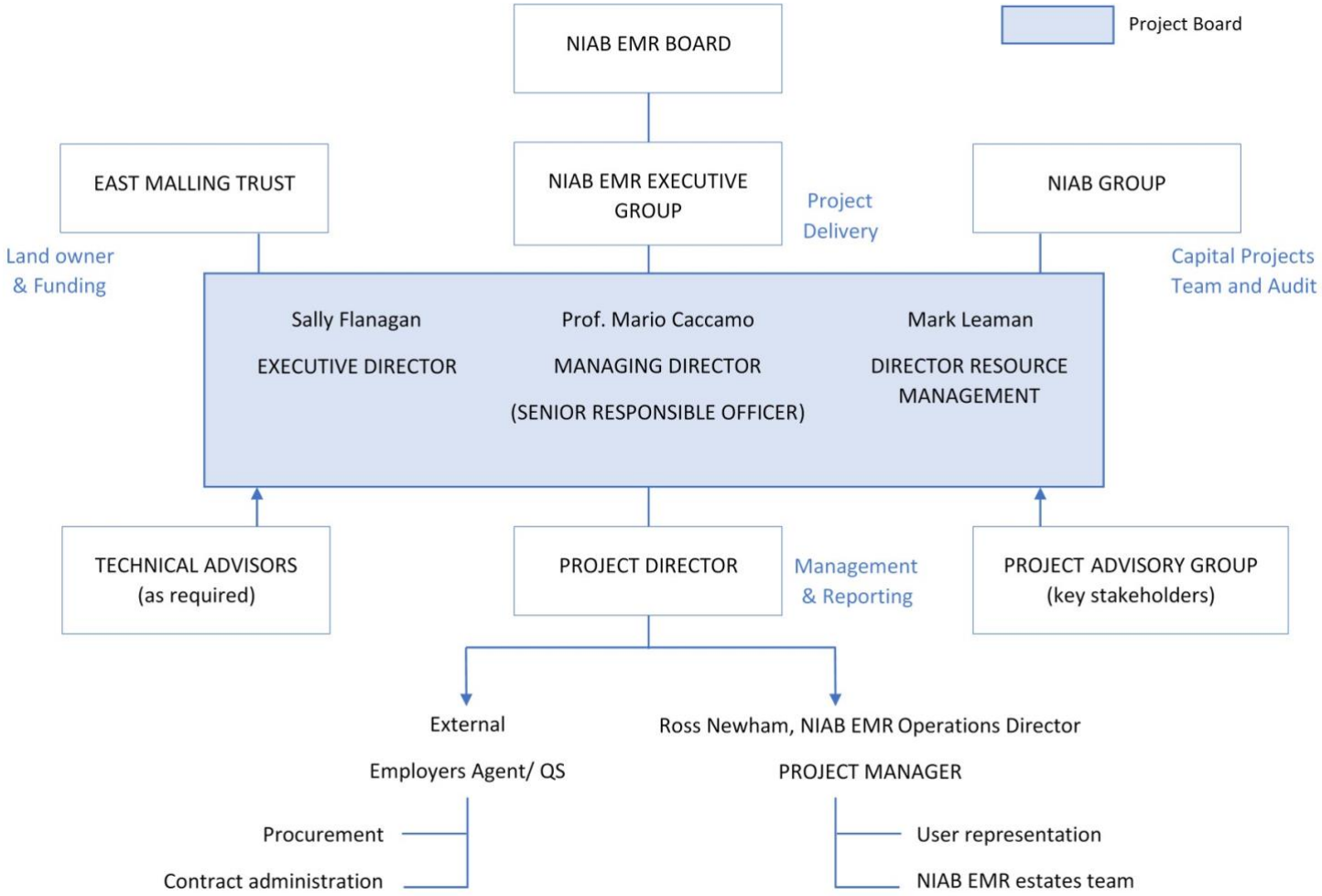
The Senior Responsible Officer is Professor Mario Caccamo, the Managing Director at NIAB EMR. Professor Caccamo will be responsible for the delivery of the project.

To ensure the successful delivery of this capital project NIAB EMR will put in place effective governance arrangements that include senior officers of the organisation and critically, have been tried and tested previously in other comparable capital development projects. Figure 6.1 shows the proposed project governance and management arrangements. The roles and responsibilities of the parties indicated in the figure are described in the following paragraphs.

The Project Board
The Project Board will be responsible for the direction and overall management of the scheme. The Project Board is chaired by the Senior Responsible Owner and comprises key representatives from NIAB EMR, the East Malling Trust and the wider NIAB Group. These organisations contribute the following expertise:

NIAB EMR	Lead Applicant. Responsible for Project Delivery.
East Malling Trust	Partner. Land owner. Source of private funding. Development of the Innovation Campus.
NIAB Group	Operational support. Provide resources of their Capital Projects Team Resources to assist with project governance and audit requirements.

Project Board meetings would normally be held every six/eight weeks dependent on the stage and phase of project activity. Frequency of Project Board meetings would become monthly during the procurement and construction phases of the project. The responsibilities of the Project Board include:


Project Board
NIAB EMR BOARD
EAST MALLING TRUST
NIAB EMR EXECUTIVE GROUP
Project Delivery
NIAB GROUP
Land owner & Funding
Capital Projects Team and Audit
Sally Flanagan
EXECUTIVE DIRECTOR
Prof. Mario Caccamo
MANAGING DIRECTOR
(SENIOR RESPONSIBLE OFFICER)
Mark Leaman
DIRECTOR RESOURCE MANAGEMENT
TECHNICAL ADVISORS (as required)
PROJECT DIRECTOR
Management & Reporting
PROJECT ADVISORY GROUP (key stakeholders)
External
Ross Newham, NIAB EMR Operations Director
Employers Agent/ QS
PROJECT MANAGER
Procurement
Contract administration
User representation
NIAB EMR estates team

- Setting the strategic direction of the project;
- Defining the scope and setting the timescales for major project milestones;
- Approving the appointment of the Project Director;
- Providing the Project Director with the strategy and decisions required to enable the scheme to proceed to programme and resolve any challenges;
- Securing necessary approvals through the partner statutory authorities;
- Approving the project scope of work, programme and budgets, as well as any subsequent changes;
- Signing off completion of each stage of the project and authorising the start of the next stage;
- Monitoring project risks and taking any appropriate action to mitigate risks.

The Project Board would draw additional resources and expertise into its decision-making processes as required during the development of the project. This might include additional **Technical Advisors** or consultants to provide specific advice or information. In addition, as part of our stakeholder management processes, we envisage a **Project Advisory Group** being established that would involve key representatives drawn from the range of stakeholders presented in section 6.4.

Project Director
The Project Director reports regularly to the Project Board, keeping members informed of progress and highlighting any issues or concerns.

The Project Director is the individual responsible for organising, controlling and delivering the scheme. They will maintain oversight of the project delivery, monitoring and reporting requirements. The Project Director leads and manages the key project team, comprising the external EA/QS and internal Project Manager, with the authority and responsibility to run the project.

In addition to managing the delivery of the project against agreed milestones and KPI's, they will be responsible for regular reporting to the Project Board, preparing reports for KMEP/ SELEP, developing communications plans and monitoring/ reporting obligations. They will also be assigned the task of running and updating the risk register.

Employers Agent/ Quantity Surveyor
The use of a suitably qualified individual to perform the role of Employers Agent (EA) and Quantity Surveyor (and CDM Coordinator in specific instances) has been used successfully in a number of capital projects by the NIAB Group. The EA is a function that can assist the Project Director with the day to day management of the external design team and the building contractor once procured.

Project Manager
The role of the Project Manager, in this case an internal appointment from NIAB EMR, will coordinate the day to day activities of the internal staff, scientists, user representatives and the on-site Facilities/ Estates teams.

6.2. Approvals and escalation procedures:

The East Malling Trust and NIAB EMR have established reporting and approval procedures (including delegation of authority).

6.3. Contract management:

The Project Board has appointed Modus Construction to professionally managed the contracts for this project.

The success of the project is dependent on the good working relationships that are formed between all members of the project delivery team and we believe that Modus' pro-active and collaborative approach is the cornerstone of that success. The Contract Administrator should always remain impartial and act fairly and reasonably to all parties.

The Building Contract (likely to be JCT Design & Build) is there to protect both parties and is quite clear in its conditions, interpretations and contract processes. However, there are times when an event won't be black-and-white and there will need to be an interpretation of the relevant matters, resulting effects & contract clauses to determine the correct contractual process.

Modus have vast experience in JCT and other forms of contract and can advise and ensure the contract is adhered to on any possible future disputes.

Modus manage conflicts by dealing with issues as they arise rather than leaving them to escalate, being pro-active rather than reactive. Holding regular meetings with key stakeholders to discuss any issues that may arise is key to avoiding a full conflict dispute.

Modus believe that a collaborative, transparent approach is the best resolution to any issues. We are always upfront and honest with our Clients & Contractors. We also find that face-to-face meetings with the entire team is the best way of resolved issues promptly. We can confirm that due, in -part, to the above process, we have never had a project go to adjudication.

6.4. Key stakeholders:

The key stakeholders and interest groups associated with this project are:

- SELEP – as primary funding provider (subject to approval of the Business Case);
- Kent and Medway Economic Partnership – as the federated area board which oversees delivery of LGF projects across Kent and Medway;
- Tonbridge & Malling Borough Council –ongoing engagement with these groups is essential and may offer benefits when dealing with the local population as a whole;
- Regional horticulture/ research focused businesses including those based on East Malling campus – in the long run this scheme will improve the facilities available for these businesses. It is important to engage with these companies as in the short-term there could be some (minor) disruption that could impact on their operation;

To date, we have engaged with a number of these key stakeholders and regional horticultural and research focused businesses as the concept of the Innovation Campus has been developed. They provide evidence of the support for the proposed investment in new R&D facilities including new plant growing facilities.

A Stakeholder Management and Engagement Plan will be developed by the Project Director within their first six months in post.

6.5. Equality Impact:

The Equality Impact Assessment is attached in a separate document.

6.6. Risk management strategy:

A proactive risk management procedure will be operated, including a risk assessment approach, which ensures that risks are continuously identified, owners assigned and mitigation measures put in place. The Risk Register provided in Appendix C includes the risks identified to date, covering all aspects of the project. The Risk Register will be managed by the Project Director reporting to the Project Board.

Regular reviews will check the status of each risk and monitor their control and mitigation. **All risks are currently owned by either NIAB EMR or the East Malling Trust**. As the project develops it is expected that some of these risks will be transferred to contractors constructing the infrastructure.

6.7. Work programme:

A high-level work programme has been developed which will allow delivery of the project within the funding period. Our current work programme is summarised below and has been provided in the GANTT chart in Appendix D. As the project progresses the programme will be reviewed and updated as required. The project programme will be monitored and updated by the Project Director.

The Horticultural Zone design process began in November 2018 and was complete by April 2019. The Planning application was submitted with Full Planning granted in September 2019.

Activity	Duration (months)	Start	Conclude
Design works and development of planning application	6	Nov 2018	April 2019
Planning application determination period	5	May 2019	Sept 2019
Contractor(s) procured, contract let and mobilised	6	Mar 2020	Aug 2020
Infrastructure service works	3	Sept 2020	Nov 2020
Construction works	6	Oct 2020	Mar 2021
Fit-out works	3	April 2021	June 2021
Facility commissioned/ operational	0	June 2021	

6.8. Previous project experience:

The proposed Project Board has been in operation during the development of the East Malling Trust Innovation Campus Development Plan and has been integral to the development of the Horticultural Zone project and this funding application.

Although there has been a lack of major capital investment at the East Malling site for a number of years, there have been multiple laboratory refurbishment and remodelling projects. The NIAB EMR Operations Director, Ross Newham (the proposed Project Manager), working with the Facilities/ Estate team has managed all of these projects.

NIAB in Cambridge, within the wider NIAB Group, has successfully delivered a number of site redevelopment projects of a similar scale and scope to the one proposed here. These schemes have included:

Office & laboratory building and isolation glasshouse (2015 to date) £17.8m.
Taken through RIBA stages 1, 2 and 3 of the design process. Building designs subsequently submitted for planning permission (and approved). Currently under construction.

Visitor Centre and Demonstration Glasshouse (2011-2012) £3.2m
Glasshouse 500m2. Commissioned in late 2012
Funded (40%) by ERDF and used to showcase plant science innovation to SME's and start-ups

Containment (CL1) glasshouse (2011-2014) £0.9m
Detailed design and construction 290m2 of containment CL1 facilities, built in three phases to accommodate expanding volumes of work.
Funded privately and used for specific crop production work

Glasshouse facilities and header/ energy centre building (2008-2009) £3.4m
Detailed design and construction 1,825m2 glasshouses and 365m2 header building & energy centre
Funded privately and operational from late 2009 onwards

Release of 4.9 acres land for residential development (2007-2009) £1.4m
Relocation and re-provision of scientific infrastructure from 4.9 acre site in Cambridge at NIAB HQ.
Mixture of new build facilities and refurbished others
Divided into three work packages to allow flexibility in delivery but ultimately allow site clearance.

Development of major site master plan for new research facilities (2006-2007) £44m
Design stages A, B and C completed with users and design team.
Resulted into two planning applications being developed, submitted and approved (to two different planning authorities).
Work commenced at different stages, to protect planning consent and implement phased masterplan subject to funding availability and available resources.

In all the examples above, the **construction phases of the projects were completed on time and to budge**t. The anticipated project outputs (primarily new facilities) and wider benefits/ outcomes were achieved.

6.9. Monitoring and evaluation:

6.91 Logic Map

Objectives	Inputs	Outputs	Outcomes	Impacts
Objective 1 - Unlock the East Malling campus for future investment and development. **Objective 2** - Install the primary infrastructure to service the new Horticulture Zone in the immediate to long-term. ***Objective 3****:* Construct the infrastructure to house the **energy centre** which in future will enable the deployment of low-carbon technologies. This will improve sustainability and reduce environmental impact in horticultural research and innovation. ***Objective 4****:* Construct new state-of-the-art plant growing facilities that will enable new technologies and production systems to be developed, commercialised and	Grant Spend **£1.75m** Matched Contributions Spend **£3.293m**	**1,200m2** glasshouse Energy centre (**268m2**)	**14** new jobs **£420k** p/a project funding (UK Research & Innovation) **£150k** p/a industry funding	**150** new jobs created elsewhere by industry **100** trainees **£500k** p/a industry R&D investment elsewhere **40** safeguarded jobs at NIAB EMR

demonstrated as best practice to the industry.				

7. DECLARATIONS

Has any director/partner ever been disqualified from being a company director under the Company Directors Disqualification Act (1986) or ever been the proprietor, partner or director of a business that has been subject to an investigation (completed, current or pending) undertaken under the Companies, Financial Services or Banking Acts?	*Yes / No*
Has any director/partner ever been bankrupt or subject to an arrangement with creditors or ever been the proprietor, partner or director of a business subject to any formal insolvency procedure such as receivership, liquidation, or administration, or subject to an arrangement with its creditors	*Yes /No*
Has any director/partner ever been the proprietor, partner or director of a business that has been requested to repay a grant under any government scheme?	*Yes / No*

**If the answer is "yes" to any of these questions please give details on a separate sheet of paper of the person(s) and business(es) and details of the circumstances. This does not necessarily affect your chances of being awarded SELEP funding.*

I am content for information supplied here to be stored electronically, shared with the South East Local Enterprise Partnerships Independent Technical Evaluator, Steer Davies Gleave, and other public sector bodies who may be involved in considering the business case.

I understand that a copy of the main Business Case document will be made available on the South East Local Enterprise Partnership website one month in advance of the funding decision by SELEP Accountability Board. The Business Case supporting appendices will not be uploaded onto the website. Redactions to the main Business Case document will only be acceptable where they fall within a category for exemption, as stated in Appendix G.

Where scheme promoters consider information to fall within the categories for exemption (stated in Appendix G) they should provide a separate version of the main Business Case document to SELEP 6 weeks in advance of the SELEP Accountability Board meeting at which the funding decision is being taken, which highlights the proposed Business Case redactions.

I understand that if I give information that is incorrect or incomplete, funding may be withheld or reclaimed and action taken against me. I declare that the information I have given on this form is correct and complete. Any expenditure defrayed in advance of project approval is at risk of not being reimbursed and all spend of Local Growth Fund must be compliant with the Grant Conditions.

I understand that any offer may be publicised by means of a press release giving brief details of the project and the grant amount.

Signature of applicant	
Print full name	
Designation	

8. APPENDIX A – ECONOMIC APPRAISAL ASSUMPTIONS

Appraisal Assumptions	Details
Discounting	3.5% standard rate
Additionality	For the jobs created – 10% displacement and 10% leakage were considered in the analysis. A multiplier factor of 1.25 was also consider as it is recognised that 1 additional job will be created per 4 new jobs added by this project.
Appraisal period	10 years (2022-2032)

9. APPENDIX B - FUNDING COMMITMENT

Draft S151 Officer Letter to support Business Case submission

Dear Colleague
In submitting this project Business Case, I confirm on behalf of [Insert name of County or Unitary Authority] that:

- *The information presented in this Business Case is accurate and correct as at the time of writing.*
- *The funding has been identified to deliver the project and project benefits, as specified within the Business Case. Where sufficient funding has not been identified to deliver the project, this risk has been identified within the Business Case and brought to the attention of the SELEP Secretariat through the SELEP quarterly reporting process.*
- *The risk assessment included in the project Business Case identifies all substantial project risks known at the time of Business Case submission.*
- *The delivery body has considered the public-sector equality duty and has had regard to the requirements under s.149 of the Equality Act 2010 throughout their decision-making process. This should include the development of an Equality Impact Assessment which will remain as a live document through the projects development and delivery stages.*
- *The delivery body has access to the skills, expertise and resource to support the delivery of the project*
- *Adequate revenue budget has been or will be allocated to support the post scheme completion monitoring and benefit realisation reporting*
- *The project will be delivered under the conditions in the signed LGF Service Level Agreement with the SELEP Accountable Body.*

I note that the Business Case will be made available on the SELEP website one month in advance of the funding decision being taken, subject to the removal of those parts of the Business Case which are commercially sensitive and confidential as agreed with the SELEP Accountable Body.

Yours Sincerely,
SRO (Director Level) ……
S151 Officer ……

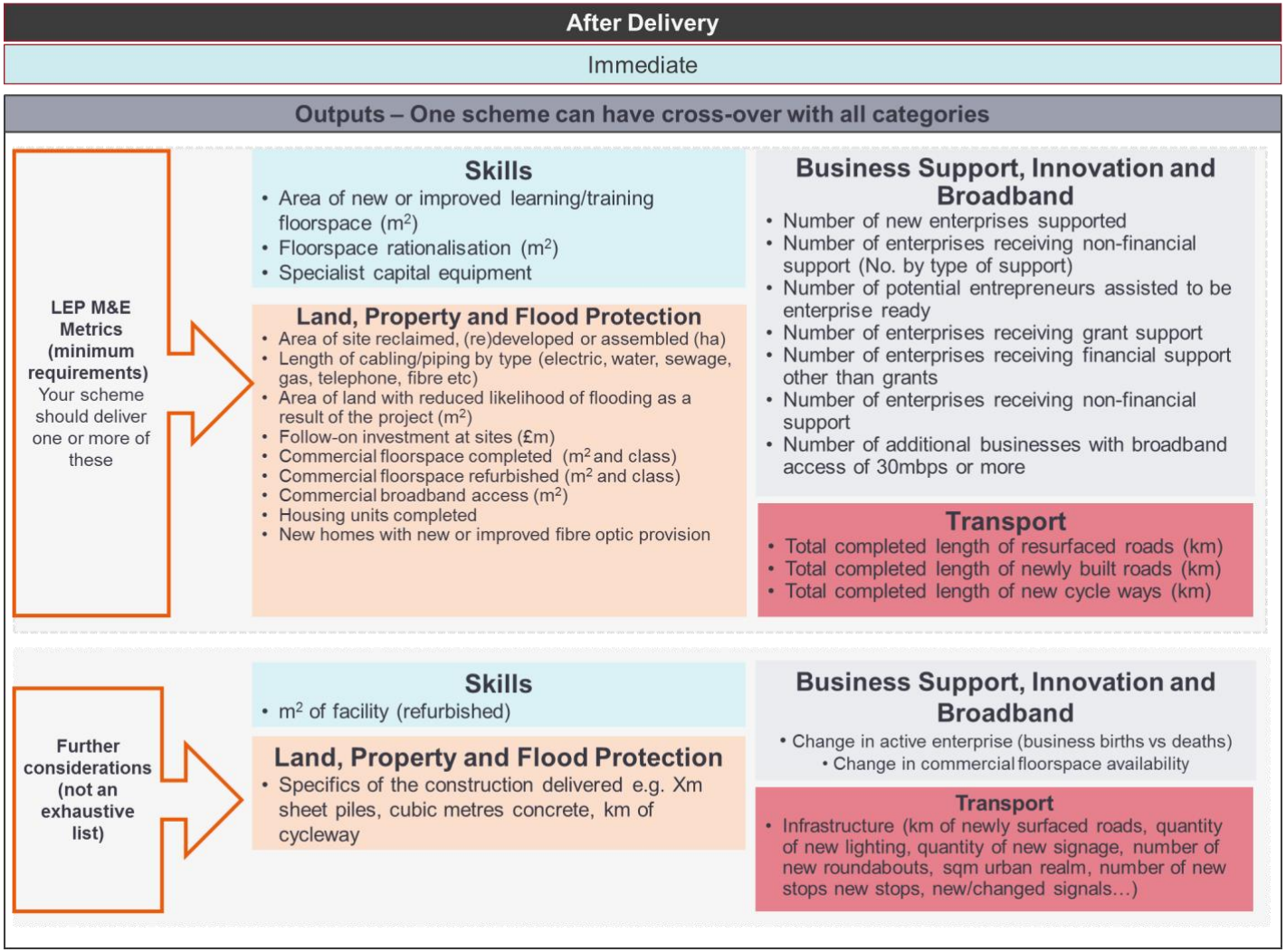
10. APPENDIX C – RISK MANAGEMENT STRATEGY

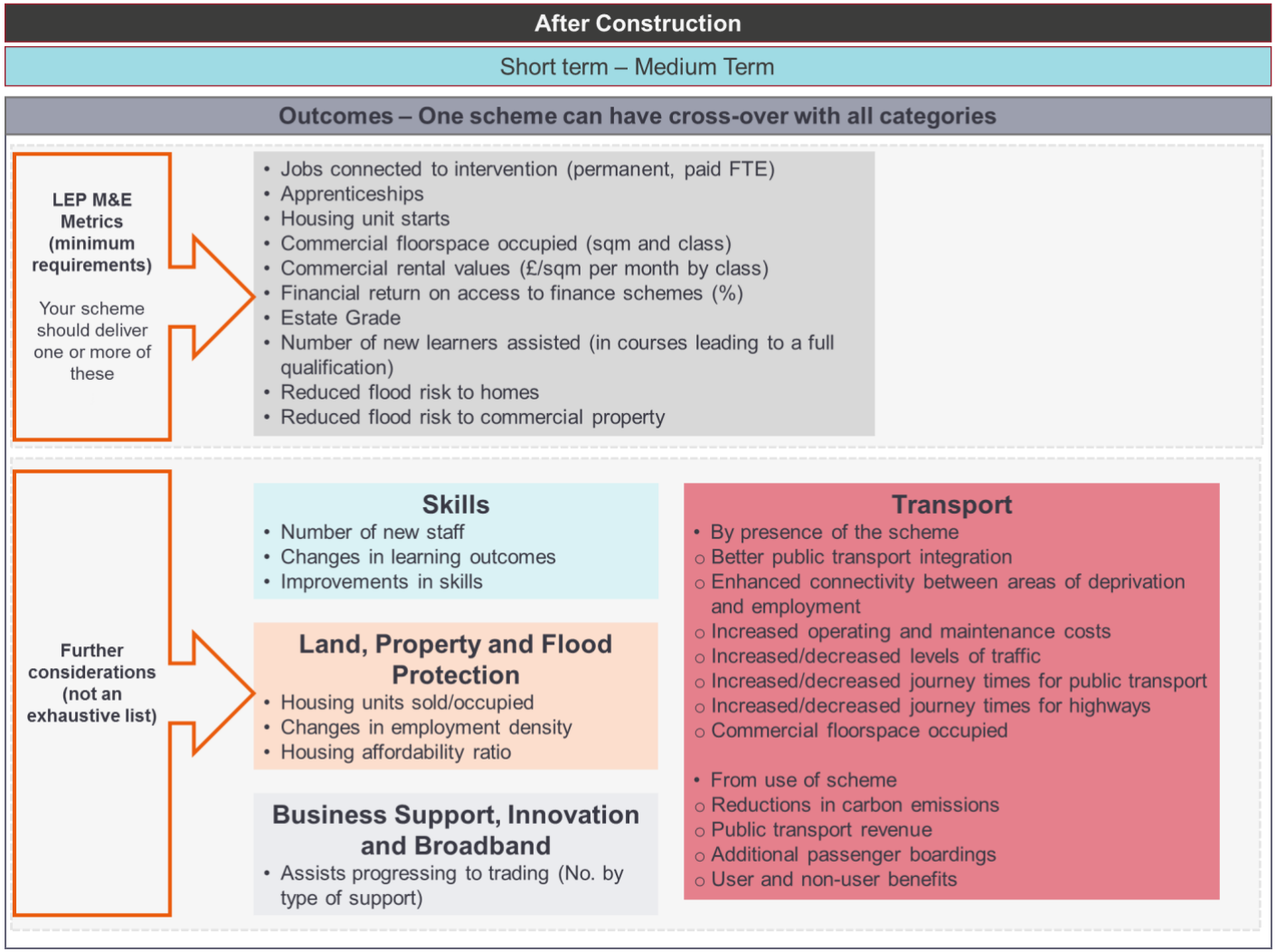
Risk Register provided in a separate document.

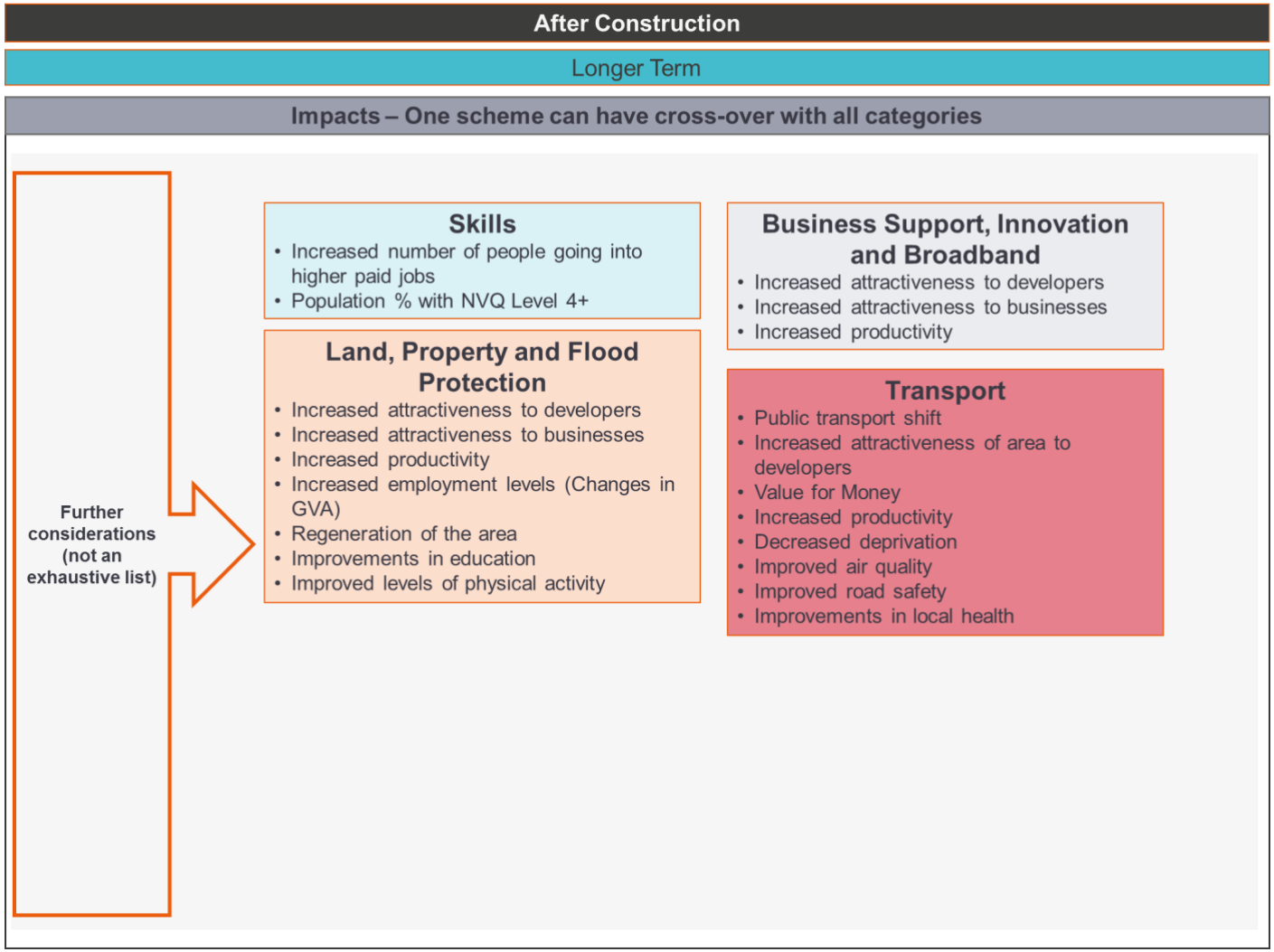
11. APPENDIX D – GANTT CHART

Tasks	Start date	Finish date	2018		2019									2020											2021					
			11	12	1	2	3	4	5	6	7	8	9	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
Design works and development of planning application	*Nov 2018*	*April 2019*																											
Planning application determination period	May 2019	Sept 2019																											
Contractor(s) procured, contract let and mobilised	Mar 2020	Aug2020																											
Infrastructure service works	Sept 2020	Nov 2020																											
Construction works	Oct 2020	Mar 2021																											
Fit-out works	Mar 2021	Jun 2021																											
Key Milestones / Deliverables																													
Planning Granted		Sept 2019																											
Facility Operational		Jun 2021																											

12. APPENDIX E / F – MONITORING AND EVALUATIONS METRICS FOR LOGIC MAP


After Delivery
Immediate
Outputs – One scheme can have cross-over with all categories
LEP M&E Metrics (minimum requirements) Your scheme should deliver one or more of these
Skills
• Area of new or improved learning/training floorspace (m²)
• Floorspace rationalisation (m²)
• Specialist capital equipment
Land, Property and Flood Protection
• Area of site reclaimed, (re)developed or assembled (ha)
• Length of cabling/piping by type (electric, water, sewage, gas, telephone, fibre etc)
• Area of land with reduced likelihood of flooding as a result of the project (m²)
• Follow-on investment at sites (£m)
• Commercial floorspace completed (m² and class)
• Commercial floorspace refurbished (m² and class)
• Commercial broadband access (m²)
• Housing units completed
• New homes with new or improved fibre optic provision
Business Support, Innovation and Broadband
• Number of new enterprises supported
• Number of enterprises receiving non-financial support (No. by type of support)
• Number of potential entrepreneurs assisted to be enterprise ready
• Number of enterprises receiving grant support
• Number of enterprises receiving financial support other than grants
• Number of enterprises receiving non-financial support
• Number of additional businesses with broadband access of 30mbps or more
Transport
• Total completed length of resurfaced roads (km)
• Total completed length of newly built roads (km)
• Total completed length of new cycle ways (km)
Further considerations (not an exhaustive list)
Skills
• m² of facility (refurbished)
Land, Property and Flood Protection
• Specifics of the construction delivered e.g. Xm sheet piles, cubic metres concrete, km of cycleway
Business Support, Innovation and Broadband
• Change in active enterprise (business births vs deaths)
• Change in commercial floorspace availability
Transport
• Infrastructure (km of newly surfaced roads, quantity of new lighting, quantity of new signage, number of new roundabouts, sqm urban realm, number of new stops new stops, new/changed signals…)


After Construction
Short term – Medium Term
Outcomes – One scheme can have cross-over with all categories
LEP M&E Metrics (minimum requirements)
Your scheme should deliver one or more of these
• Jobs connected to intervention (permanent, paid FTE)
• Apprenticeships
• Housing unit starts
• Commercial floorspace occupied (sqm and class)
• Commercial rental values (£/sqm per month by class)
• Financial return on access to finance schemes (%)
• Estate Grade
• Number of new learners assisted (in courses leading to a full qualification)
• Reduced flood risk to homes
• Reduced flood risk to commercial property
Further considerations (not an exhaustive list)
Skills
• Number of new staff
• Changes in learning outcomes
• Improvements in skills
Land, Property and Flood Protection
• Housing units sold/occupied
• Changes in employment density
• Housing affordability ratio
Business Support, Innovation and Broadband
• Assists progressing to trading (No. by type of support)
Transport
• By presence of the scheme
○ Better public transport integration
○ Enhanced connectivity between areas of deprivation and employment
○ Increased operating and maintenance costs
○ Increased/decreased levels of traffic
○ Increased/decreased journey times for public transport
○ Increased/decreased journey times for highways
○ Commercial floorspace occupied
• From use of scheme
○ Reductions in carbon emissions
○ Public transport revenue
○ Additional passenger boardings
○ User and non-user benefits


After Construction
Longer Term
Impacts – One scheme can have cross-over with all categories
Further considerations (not an exhaustive list)
Skills
• Increased number of people going into higher paid jobs
• Population % with NVQ Level 4+
Land, Property and Flood Protection
• Increased attractiveness to developers
• Increased attractiveness to businesses
• Increased productivity
• Increased employment levels (Changes in GVA)
• Regeneration of the area
• Improvements in education
• Improved levels of physical activity
Business Support, Innovation and Broadband
• Increased attractiveness to developers
• Increased attractiveness to businesses
• Increased productivity
Transport
• Public transport shift
• Increased attractiveness of area to developers
• Value for Money
• Increased productivity
• Decreased deprivation
• Improved air quality
• Improved road safety
• Improvements in local health

13. APPENDIX F – MONITORING AND EVALUATION PLAN AND BASELINE REPORT TEMPLATES

Monitoring and Evaluation Plan attached in a separate document.

14. APPENDIX G - CATEGORIES OF EXEMPT INFORMATION

There is a clear public interest in publishing information and being open and transparent. But sometimes there is information which we can't publish because it would cause significant harm to the Council - for example by damaging a commercial deal or harming our position in a court case. Equally sometimes publishing information can harm someone who receives a service from us or one of our partners.

The law recognises this and allows us to place information in a confidential appendix if:

(a) it falls within any of paragraphs 1 to 7 below; and
(b) in all the circumstances of the case, the public interest in maintaining the exemption outweighs the public interest in disclosing the information.

1. *Information relating to any individual.*
2. *Information which is likely to reveal the identity of an individual.*
3. *Information relating to the financial or business affairs of any particular person (including the authority holding that information)*
4. *Information relating to any consultations or negotiations, or contemplated consultations or negotiations, in connection with any labour relations matter arising between the authority or a Minister of the Crown and employees of, or office holders under, the authority.*
5. *Information in respect of which a claim to legal professional privilege could be maintained in legal proceedings.*
6. *Information which reveals that the authority proposes— (a) to give under any enactment a notice under or by virtue of which requirements are imposed on a person; or (b) to make an order or direction under any enactment.*
7. *Information relating to any action taken or to be taken in connection with the prevention, investigation or prosecution of crime.*