This section considers development costs together with funding and procurement strategies to deliver the project.

This section considers development costs together with funding and procurement strategies to deliver the project.

8.1 Cost Categories and Phases of Development

At the outset it is worth emphasising that the land use plan for the Grangegorman site addresses a very long term horizon and allows for commercially funded development (i.e. development that will not require Exchequer funding) such as student accommodation, retail and science park activities, to be integrated on the site with the core educational and health facilities.

The project will involve a number of development phases over time. The initial phase of development on the Grangegorman site will accommodate replacement mental health facilities for the HSE and core educational facilities for DIT. For the purposes of this chapter these combined facilities and supporting infrastructure are termed "Core Public Facilities".

Other phases of development will deliver additional healthcare facilities for the HSE, complementary campus facilities for DIT, community related facilities and mixed use development.

Each phase of development is subdivided into tranches and discrete cost categories which are described below.

8.1.1 Core Public Facilities

Core Public facilities comprise, on full completion over a number of tranches of development, a total build area of up to 161,700 sq. m. as follows:

Facility	Area m²
HSE Tranche 1 – Packages 1 (split into 1A and 1B sub-packages)	16,518
HSE Tranche 1 – Package 2 HSE Tranche 1 – Package 3	4,100 1,010
HSE sub-total	21,628
DIT Core Tranche 1 DIT Core Tranche 2	108,179 31,862
DIT sub-total	140,041
Total	161,669

8 Project Funding

HSE Tranche 1 - Package 1

These buildings, delivered in two separate sub-packages, will replace the mental health residential facilities on the site and will also provide rehabilitation and respite care accommodation.

HSE Tranche 1 – Package 2

These buildings are for the mental health community care service together with primary care.

HSE Tranche 1 – Package 3

This building is high support accommodation for mental health community care.

DIT Core educational facilities

Core facilities are those that are considered essential for the delivery of DIT's core educational and research activities. A floor area of up to 140,000 m² has been derived from a norms based assignment of space per student type and discipline and is a figure that has been agreed with the Buildings Unit of the Department of Education and Science. This space is for a projected student population of 12,500 full-time students together with part-time students, apprentices and junior music students. In addition, these facilities will accommodate 2,000 DIT staff. This space will be delivered in two tranches.

DIT Core Tranche 1

Tranche 1 of the DIT Core will provide facilities to accommodate over 20 schools from within DIT. Some schools in the College of Engineering and the Built Environment that are located at Bolton St. and Linenhall would not be re-located to Grangegorman in Tranche 1.

DIT's core educational facilities completed in Tranche 1 will yield very substantial consolidation of DIT activities on the Grangegorman site. This consolidation will provide significant gains in DIT's organisational effectiveness and efficiency and will facilitate major reform of curricular areas.

DIT Core Tranche 2

Some schools in the College of Engineering and the Built Environment that are located at Bolton St. and Linenhall will be relocated to Grangegorman in Tranche 2.

DIT's functions that are located at Bolton St. and environs are within close proximity to the Grangegorman site and will be within easy walking distance of the new campus. This proximity will enable the DIT schools in the Bolton St. area to be integrated with the new learning and research paradigm which will unfold on the consolidated Grangegorman campus. It will allow a decision, at a later point in time, to complete the full relocation of DIT by effecting the transfer of Bolton St. facilities to the Grangegorman site.



8.1.2 Key Project Costs

There are a number of project costs that apply across all of the cost categories, namely:

- Infrastructure Costs
- Sustainability measures
- Professional Fees
- Contingency
- Levies and planning contributions
- VA

These costs are discussed below.

Infrastucture - Infrastructure costs have been split into 2 delivery tranches and separated into the main infrastructural works and finishing works for each tranche.

Sustainability Measures – An allowance has been included for the measures necessary to ensure compliance with good industry practice sustainability guidelines at the time of construction.

Professional Fees - Professional fees have been estimated on capital costs including infrastructure apportionments. Professional fees cover the costs of the architect, quantity surveyor, mechanical & electrical engineers, civil and structural engineers and planners.

Contingency - In order to allow for the variability in cost that is reflective of the Masterplan stage i.e. absence of detailed building design, a contingency per cost category has been included.

Levies and planning contributions - The standard Dublin City Council (DCC) levies are based on the DCC Development Contribution Scheme which came into effect on 1st January 2004. In addition DCC has adopted a "Metro North" contribution scheme as allowed for under section 49 of the Planning & Development Act 2000. These costs have been included as well as an allowance for a Luas levy.

VAT - VAT has been charged at standard current rates i.e. a rate of 13.5% on construction related costs and 21% on Professional Fees and equipment.

8.1.3 Costs of Construction for HSE Tranche 1

The cost of construction for 21,628 m² of HSE Tranche 1 is €105.96m excluding VAT (€120.23m including VAT) in January 2010 prices including apportionment of infrastructure and other key project costs. The costs per square metre for each component building have been based on construction costs as of January 2010 and have been benchmarked against the HSE cost database. The HSE Tranche 1 costs above includes €18.74m excluding VAT (€20.52m including VAT) for urgently required replacement

mental health facilities at Grangegorman. Construction on these replacement facilities will commence in 2010.

8.1.4 Costs of Construction for DIT Tranche 1

The cost of construction for 108,179 m² of DIT Tranche 1 is €426.83m excluding VAT (€485.61m including VAT) in January 2010 prices including apportionment of infrastructure and other key project costs. The costs per square metre for each component DIT building have been based on construction costs as of January 2010 and have been benchmarked with other Third Level Institutions.

The total capital cost of the DIT core educational facilities has been benchmarked to the figures cited in the Consultants Report submitted to the Department of the Taoiseach in 2001 and is consistent with those cost figures.

8.2 Funding of Core Public Facilities

Funding Aim: To secure the funding necessary to deliver the Project taking account of the Government Decision in 2002 and to align with the Project Vision and Delivery Strategy.

8.2.1 Funding of HSE Tranche 1

The HSE will fund the health component of the Grangegorman development from its own resources including utilising proceeds from property disposals elsewhere.

8.2.2 Funding of DIT Tranche 1

The majority of DIT Tranche 1 is self-funded from DIT's own resources. The funding of DIT Tranche 1 is made up of the following key elements:

- Proceeds from Disposal of DIT Properties
- Proceeds from Operational Efficiencies
- Philanthropy
- Government Grant.

These funding elements are described below.

DIT Property Portfolio - A full market valuation of all DIT properties has been carried out by DTZ Sherry Fitzgerald in accordance with RICS Valuation Standards ("Red Book") and the resultant assets valuation has been included in the project costings. This valuation is considered to be an appropriate and conservative

approximation of the value of DIT properties, recognising current property conditions, and given that DIT property sales are planned to occur over the period 2013-2017. The overall budget for delivery of DIT Core Tranche 1 takes account of disposal costs and short term lease costs with regard to the disposal of DIT properties. The valuation of DIT's property portfolios is the subject of ongoing review.

DIT savings by operating on one campus at Grangegorman

- DIT has conducted an analysis of its operating costs in the context of relocating from a fragmented locations across the city to a single consolidated campus location at Grangegorman. The financial implications on the cost base of DIT are significant with significant cost efficiencies being generated.

Relocation to the Grangegorman site will create significant savings in rent on existing buildings and will result in greater administrative efficiencies. Consolidation onto one campus will enable savings to be generated from more efficient operations in administration, IT and library provision. These cost savings will build up through time as each stage of the development is completed.

Rent of existing buildings - The Grangegorman development will allow DIT to exit all its current property lease commitments. The timing of the saving will be dependent on the timeframe and phasing of the move to the Grangegorman site.

Energy Savings - Significant operational energy savings are also anticipated due to consolidation of DIT in purpose built sustainably designed buildings and due to the energy strategy set out in chapter 6.

Philanthropy - The higher education sector in Ireland has attracted philanthropic donations to support capital investment in its infrastructure and in the provision of its activities. A scheme for income tax relief for cash donations to approved bodies, which includes higher education institutions, was introduced in 2001.

In keeping with trends within the sector DIT has developed a tailored strategy to raise funding via philanthropic donations. The 'DIT Foundation' was created to lead and coordinate a major fundraising campaign with a target of generating €50m in capital to underpin the new campus development and raise a further €15m to support research, access and participation measures and overall academic activities. The funding approach being adopted is to link the financial commitment from donors with specified buildings on campus.

An operational plan was adopted by the DIT Foundation in February 2007 outlining the scale and implementation steps for the campaign. The DIT Foundation is a registered charity and can benefit from all associated tax relief measures.

GDA Strategic Plan 2011

Government Grant - Central to the funding strategy is a desire to ensure an affordable and evenly spread government grant profile that lends itself to incremental decision making for individual packages of development. The Government grant funding element is the residual funding required after all DIT property disposals, DIT savings and philantrophy have been applied to the project.

Government grant could be provided by two means, either by capital grant or by an allowed annual sum that would cover the unitary charge of a PPP contract, or a combination of both. Given current economic conditions the GDA has sought to minimize the capital grant requirement and to utilize a PPP mechanism where appropriate.

The total amount of Government Grant required for DIT Core Tranche 1 educational facilities over a period from 2010 to 2040 is €211m in Net Present Value terms and represents funding in the order of 43% of the costs (the remaining 57% funding being provided by DIT).

Much of the anticipated Government investment in the Project will feed back to Government in the form of direct and indirect taxes. The Government leverages cash inflows from the entire development due to the use of DIT property proceeds to fund construction, and also from the HSE Tranche 1 investment.

The amount of Government Grant reduces to €126m after taking account of VAT inflows and Levies.

To ensure that the total grant figure is aligned with the 2002 Government decision the GDA has reviewed the value of that decision and updated it to January 2010 values.

The Government Decision in April 2002 agreed an Exchequer contribution, in principle, of €198.5M in 2001 prices for the DIT element of the Grangegorman project. An indexation factor of 0.18 representing CPI has been used to bring the value of the sum to January 2010 prices. A VAT rate of 13.5% has been used as the funding will be primarily used for construction costs. The resultant re-based value of the decision sum is €266m.

The supplemental Government Grant needed for DIT Core Tranche 1 facilities is €211m (Net Present Value at January 2010) which is substantially within the value of the Government Grant decision in January 2010 prices.

8.2.3 Other Phases of Development

Other phases of development will occur in parallel or after the initial phase of Core Public Facilities. These other phases of development are subdivided into tranches and discrete cost categories which are summarized in the table below:

Cost Category	Area m²
DIT Core Tranche 2 DIT complementary facilities HSE Tranche 2 GDA Community Facilities Supporting Mixed Use Development	31,862 89,180 20,496 7,730 60,431
Total	209,699

Further detail on the composition and the funding strategies for these phases of development is outlined below.

8.2.4 HSE Tranche 2

HSE Tranche 2 includes a range of services for older persons, people with disabilities, other community care components and administration facilities.

Funding for the various facilities comprising HSE Tranche 2 of 20,496 m2 will rely on future HSE initiatives and programmes. The HSE transformation programme 2007 -2010 outlines the change management programme for the Health Service Executive. It outlines six transformation priorities which include the configuring primary, community and continuing care services so that they deliver optimal and cost effective results. This dovetails with HSE Tranche 2 programme at the Grangegorman site – the facilitation of primary Community and Continuing care, services for older persons and services for people with disabilities.

8.2.5 DIT Core Educational Facilities – Tranche 2

The 140,041 sq m provided for DIT Core Educational facilities includes approximately 31,862 sq m for the relocation of the residual schools of DIT College of Engineering and Built Environment which will be delivered in DIT Tranche 2. At a later stage it will be delivered either in part from DIT's own property and savings or in full if Government PPP credit were made available. These schools are currently located at Bolton St. and environs which is within close proximity to the Grangegorman site.

8.2.6 DIT complementary campus facilities

In addition to core educational facilities the campus will provide a range of complementary facilities on campus including: student accommodation, sports and recreational facilities, dedicated research space, commercial/retail space and additional space for cultural activities centering on performance and exhibition space. These facilities will by their nature be self funding and anticipated funding sources have been identified. Early analysis indicates that there is a variety of options available to fund these facilities.

These facilities which will be accommodated in the 123,140m2 available to DIT are outlined below:

DIT Complementary Non Core Facilities	Area m²
Sports Centre (Excluding space provided in DIT Core)	7,000
Student Accommodation	57,000
Additional Buildings (Applied Arts Performance Space, Early Learning Centre, DIT Research Institutes, Industry Centre/Incubation, Retail)	25,140
Sub-total	89,140
Expansion Space	34,000
Total	123,140

Expansion Space - The expansion space can be utilized for college space, research activities or science parks. This reflects the general principle of interchangeability of DIT space between education and research facilities thereby allowing a flexible arrangement in the long term to enable DIT to respond to changing needs.

Sports Centre - Sports facilities are currently located at Bolton Street, Linenhall Street and Kevin Street. The replacement sports facilities set out at 2,000 m2 in DIT Core are to be funded from DIT core by property disposals representing the proportion of current sports to owned buildings.

The remaining element of the Sports Centre will require various funding sources. Potential funding sources that have been identified for the Sports Centre are set out below:

■ Student Development Fund - Students pay an annual capitation fee to cover costs of providing a range of student and administration services. A DIT's Student Sports, Recreation and Support Council are responsible for the disbursement of the student capitation funding. For a number of year a fraction of the capitation has been set aside in a Student Development fund to part fund student amenities on the new campus.

- Continued Student Contribution On the basis that the current policy is continued, DIT would be able to borrow using the security of a ring-fenced capitation income stream for the next ten years.
- Sports Capital Programme This is a National Lottery Funded grant which is advertised on an annual basis. The grant conditions allow third level educational institutions to apply on the condition that it will contribute to the regional and/ or national sporting infrastructure. DIT intend to submit an application for a 3 -5 year plan rather than applying for grants annually.
- Programme of the Department of Arts, Sport and Tourism closed in July 2000 and it is expected to be re-launched following the publication of a Value for Money and Policy review. The initial Programme was only made available to local authorities towards the costs of new and refurbishment of existing swimming pools. At this juncture, it is not known if the new programme remit will be expanded to include third level education institutions. The timing of the release of this report is currently unknown. However the access policy for the local community elaborated on in chapter 6 would strongly support the case for a grant for a pool facility on the Grangegorman site.

Student Accommodation - The funding potential with regard to the student accommodation has been examined in detail by DIT in conjunction with specialist advisers. Their analysis concluded that the Student Accommodation can be delivered on the basis of third party income streams.

Research Buildings - Funding for a number of research buildings will primarily come from targeted funding strategies for higher education such as the Programme for Research in Third Level Institutions (PRTLI).

The PRTLI is aimed at expanding the capacity of Irish higher education institutions to undertake research. The programme provides both capital and recurrent funding to redress the shortage of research space, equipment and staff in Irish universities. To date DIT have received grants from the four waves of funding released. The research projects in collaboration with other institutions were for the areas of bioscience, platform technologies and creative arts.

Cycle 5 of the PRTLI was opened in early 2009. DIT plan to submit a joint bid for a substantial grant application.

Science & Technology - The DIT plans to target science and industry companies as potential occupiers of the Broadstone Gate mixed-use cluster development complex. This would create a major hub of intellectual capital that would enable companies to locate close to a third level institute with a major business

and technology base. Its location beside the CIE land bank at Broadstone will facilitate the Broadstone area developing into a significant economic engine for the north-west inner city.

8.2.7 GDA - community related facilities

The key buildings in this cost category are as follows;

- a primary school for the Department of Education and Skills, under the patronage of Educate Together. The school is designated to be a 16 classroom school with ancillary special education rooms
- a public branch library co located with the main library on site
- the provision of elderly housing.

The Primary school will be funded by a capital grant from the Department of Education and Skills. The Elderly Housing will proceed if funded by the Department of the Environment Heritage and Local Government and facilitated by Dublin City Council. The Library may be funded by a Dublin City Council capital grant secured via the Department of Environment or by philanthropy. The unique initiative in developing co-located community and 3rd level library spaces positions this facility well for philanthropic funding.

8.2.8 Complementary Mixed-Use Development

The range of mixed uses at Broadstone gate (which could include offices, a science and industry centre, healthcare and other related administration, HSE administration, local retail, restaurants/cafes and commercial research laboratories) would be developed in phases on a self-funding basis.

Funding Objective 1 - GDA will seek to realise the maximum contribution to project funding from judicious implementation of the DIT Property Disposals Strategy.

Funding Objective 2 - GDA will work closely with the appropriate authorities to determine the quantum of funds available under the Government Grant, the timing of the availability of capital funding and the extent of the translation into PPP Government Credits.

Funding Objective 3 - GDA will work closely with DIT and HSE to seek to ensure the maximum funding leverage from commercial funding sources including PPPs and commercial joint ventures towards the delivery of all facilities of the Project Vision.

Funding Objective 4 - GDA will work closely with Government Departments and the NDFA to examine supporting funding tools such as GDA borrowings, refundable grants and a student accommodation tax incentive scheme.

8.3 Procurement

Procurement Aim: To procure the various elements of the Project in a coherent and integrated process which delivers the quality of built environment and the operational and maintenance management regime appropriate to the Project Vision, supports the project phasing strategy, fits the project funding strategy and subject to the foregoing, provides the best overall value for money.

8.3.1 Introduction

The primary consideration in the procurement of construction projects is the need to obtain best value for money over the whole life of the service or facility. The design and operation of the facility should maximize the delivery of effective public services; this is most likely to be achieved through integration of approach to the design, construction, operation and ongoing maintenance. In this area it is important to understand the definitions of the terminology that is being used; some key definitions are set out below.

Value For Money - this is the optimum combination of whole life costs and quality to meet the user requirements.

Procurement strategy - the procurement strategy identifies the best way of achieving the objectives of the project and value for money, taking account of the risks and constraints, leading to decisions about the funding mechanism and asset ownership for the project. The aim of the procurement strategy is to achieve the optimum balance of risk, control and funding for a particular project.

Procurement route - the procurement route delivers the procurement strategy. It includes the contract strategy that will best meet the client's needs. An integrated procurement route ensures that design, construction, operation and maintenance are considered as a whole; it also ensures that the delivery team work together as an integrated project team.

Contract strategy - the contract strategy determines the level of integration of design, construction and ongoing maintenance for a given project, and should support the main project objectives in terms of risk allocation, delivery, incentivisation and so on.

8.3.2 Objectives

Finding the optimum procurement strategy is the key to the most efficient unlocking of the Grangegorman Project. The optimum procurement strategy will evolve from a detailed consideration of the objectives of the Project. Some of the key objectives are set out below:

- Align the disposal of DIT properties with project development phases and market conditions
- Minimize and spread the profile of Government grants in line with project phasing over a 30 year horizon
- HSE's requirement to secure satisfactory replacement space for their mental health service and local clinical services operated from the site at present
- DIT's requirement to create a critical mass of student activity on that campus as early as possible bearing in mind the minimum amount of supporting facilities that are required to be in place before any part of student body occupies the campus
- Optimum use of funding available for the Project, in particular in relation to both the timing of Government funding and the realisation of value of the DIT property portfolio
- There must be a plan to mitigate the risks associated with different funding streams and excessively complex inter-linking of different funding streams should be avoided in the interests of deliverability of individual facilities and the risk management of public monies
- Ability to consider the timing imperatives e.g. for DIT the decanting of students from poor accommodation, and also HSE patients from poor accommodation
- Buildability and phasing of the development including the infrastructure. Key considerations here include the physical capability of the site and surrounding infrastructure to deal with the construction phases
- Facilitate a multiplicity of architectural proposals in order to realise the objectives of the Dublin City Development Plan 2005-2011 and to reflect the integration of the project into the city's architectural fabric
- The need for stakeholder input to the design process. The many functions required of the facilities necessitates a careful preparatory approach in order to realise value for money over the whole life of the buildings
- It will be important to have the best procurement option aligned with the various aspects of different building components, in particular having regard to protected structures and the necessity for their appropriate treatment

- and satisfying the various statutory bodies responsible for architectural conservation. In particular refurbishment of historic protected structures should not, if avoidable, be in a PPP framework, as there is little potential for value capture from design input, construction innovation and long term maintenance initiatives
- The size and timing of any procurement packages needs to work with consequent pre-tender preparations and not prolong the programme. These packages will also be required to match the market's ability to deliver bidders. Creating the appropriate sized procurement package is key in risk management terms
- Unique bespoke methods of procurement should be avoided as they would contain unnecessary risks. A template of proven delivery methods in the Irish market should be utilised as the project does not contain any particularly unusual features
- The procurement method must ensure consistency with the land use Masterplan
- Procurement of the infrastructural component needs to consider its staged delivery and the minimising of the construction impact on the area at a stage when occupied by early users, either students or HSE clients. It also needs to address the link between site infrastructure and its straddling of a major public road and a number of different stakeholders
- Alignment with the Cost Benefit Analysis documents prepared for DIT and HSE and
- DIT needs to be able to operate the substantial maintenance management regime for their buildings and facilities where it impinges on their day to day academic operations and not be subject to an external party's varying demands. For example internal buildings management operations would reside with DIT while external fabric/lifts etc can remain with a PPP company.

8.3.3 Analysis of procurement options

The main procurement options available for the Core Public Facilities of the Grangegorman project can be either by way of traditional procurement (Employer Design); Design & Build procurement or by way of a Public Private Partnership (PPP) or a combination of these.

Traditional Procurement / Employer Design - The Contractor agrees to build the design that is provided by the employer. The

contract price is generally based on a bill of quantities provided by the employer which quantifies, so far as possible, every aspect of the works. Occasionally contractors will price the works without a bill of quantities, for example from drawings. However, remeasurement contracts, target cost contracts and even cost plus/ prime cost contracts are also not infrequently used as a method of pricing. This method of contracting remains popular and in its favour it can be said that most employers and contractors would have experience of it. It is also thought that this route offers some price certainty if the design has been fully scoped out prior to construction (which is often not the case); and gives the employer greater control of the design as the employer controls the design team. The new Government Contract for this model ensures a higher standard in the formulation of the tender documents with the objective of managing cost creep risk.

Design & Build (D&B) – This procurement method comes in various forms but is typified by the contractor taking both design and construction responsibility. In integrated D&B contracting the contractor develops the design and constructs the building based on a set of requirements provided by the employer. In contrast, novated D&B contracting is closer to the traditional model in so far as the employer's design team develops the design but is then novated to the contractor who takes the design responsibility and then constructs the building.

PPP – There are many forms of Public Private Partnership. Under this procurement method the facility would be within the responsibility of the private sector for the period of the contract which is generally long term, usually a period of 15 to 30 years. This procurement method attracts cost control discipline enforced by the banks and allows for increased risk transfer leading to a greater incentive for the contractor to develop a whole life costing approach to design. While the PPP model bears similar characteristics across all types of projects, each project uniquely develops its own requirements. For example, the extent of maintenance to be managed by the private sector over the long term can be structured to satisfy an institution's needs. This can even range to the extent that some facilities are handed over on completion of construction and following expiry of a building defects period fall out of the contract while other constructed facilities remain within the long term PPP vehicle. Individual approaches can also be used in the extent of design definition ranging from a relatively broad remit to the PPP company to the use of a novated specific design. Also individual finance innovation can be developed where, for example, capital funds if available can be plugged in to the project to defray financing costs or to deliver ancillary facilities on a design-build basis.



8.3.4 Procurement Options

Due to the nature, scale and particular features of the project no single method of procurement would in itself exclusively meet the needs of the Grangegorman development.

Consequently, the procurement strategy being proposed for this development centres on a combination or mix of traditional procurement and public private partnership targeted to meet the particular development packages being procured.

The various procurement types that would be suitable for the Grangegorman development have been analysed. Their particular advantages and disadvantages in relation to specific Grangegorman procurement packages are summarized in the table below.

Overview of Public Private Partnerships

Broadly speaking, a Public Private Partnership is a partnership between the public and private sectors for the purpose of delivering a project or service traditionally provided by the public sector. The Capital Appraisal Guidelines provide that "the option of procuring a project by PPP for projects costing over €0 million should be considered by the State Authority as part of the project appraisal". Projects need to have the right risk, scale and operational profile to justify the PPP approach.

National Development Finance Agency (NDFA) was established on 1st January 2003. One of its principal functions is to advise State Authorities on the optimal financing of priority public investment projects by applying commercial standards in

Procurement Type	Features	Implications for Project
Traditional Employer Design)	Payment based on milestones as construction is completed with a small retention until client sign off. Client greater control of the design as client controls the design team. Split responsibility between construction and design may make if difficult during disputes. Final design is often not fully developed before construction starts and this can create problems and price uncertainty.	Particularly considered for all packages where there are conservation and refurbishment issues. Suitable for procurement funded from DIT property disposal where a lump sum will be available.
Design & Build (DB) Procurement	Payment based on milestones as construction is completed with a small retention until client sign off. Transfer of design and construction risk. Limited incentive for whole life costing approach to design. Does not attract private finance (if it is required). The particular advantage of this model can be timely delivery.	The significant planning lead-in time available allows (i) Employer design to be advanced and (ii) PPPs to be developed. Consequently the use of D&B will be limited. Suitable for use as an ancillary part of a joint venture contract for student accommodation where an ancillary building could be provided for DIT and handed over on construction completion.
PPP e.g. Design, Build, Finance & Maintain (DBFM)	Payment can be spread over a concession period, which enables projects to proceed when the availability of public capital may be constrained. Best value for money can normally be generated when projects are new build and similar buildings are included in bundles. PPP projects which require operational and maintenance service provision provide the private sector with strong incentives to minimise costs over the whole life of a project. Allocation of project risks to the party best able to manage them and should incentivise a private sector contractor to improve its management and performance on any given project. PPP's can be long term relatively inflexible structures. Adequate time needs to be set aside during the formulation of the PPP Project to consider how the service may change during the concession period.	PPP Unitary Charge funding profile would reduce the upfront capital grant required of Government and thereby would enable parallel developments to begin in order to achieve an efficient critical mass of DIT development that could not be achieved by relying on DIT own resources. Primary school would not suit a PPP process due to small size and not being within a schools bundle. Not well suited for conservation of listed buildings.

evaluating financial risks and costs. The NDFA's overriding objective is to maximise value for money for the Exchequer. All PPP projects involving the use of private finance must be referred to the NDFA. In addition, all projects valued at €30 million or above, whether traditional or PPP, must be referred to the NDFA for advice.

Having completed the Preliminary Appraisal and sought the advice of the NDFA as appropriate, the State Authority (Grangegorman Development Agency in this case) undertakes a Detailed Appraisal of the project. As part of the Detailed Appraisal, the State Authority is expected to identify the most appropriate procurement mechanism by carrying out a PPP Procurement Assessment.

The assessment that underlies the preferred procurement strategy in this section of the Report is based on the principles that would be considered as part of the Guidelines referred to above.

8.3.5 PPP assumptions

Government Credits - Consideration has been given to converting a proportion of the amounts sanctioned in the 2002 Government Decision to annual unitary charge credits spread over 25-30 years. In the costings the estimated annual unitary charges have been calculated by using an Equivalent Annual Cost to equate to the Net Present Value of the proposed PPP Package. The Equivalent Annual Cost can be defined as the annual cost of owning an asset over its entire life. In order to get a more exact cost of what the annual unitary charge in a PPP Project might be it is necessary to compile a Public Sector Benchmark (PSB) following the Guidelines issued by the Department of Finance in January 2007.

PPP funded from DIT savings and philanthropy - The savings DIT will be able to generate will contribute to an annual fund that can support PPP Unitary Charge procurements.

8.4 Proposed Procurement Strategy

8.4.1 Introduction

The key construction principle of the delivery plan is to create a spine of enabling infrastructure with a series of quadrangles/ groupings of buildings "plugging" into this spine. This results in a number of procurement packages that can be delivered in unison or on a phased basis.

Each procurement package requires a funding source to be matched to it and needs to be an appropriate type that would achieve value for money given the scale and nature of the facility.

8.4.2 A framework procurement strategy

Due to the nature, scale and particular features of the project no single method of procurement would in itself exclusively meet the needs of Grangegorman project. Consequently, the procurement strategy being proposed for this development centres on a combination or mix of traditional procurement and public private partnership targeted to meet the particular areas of development being procured.

8.4.3 HSE Tranche 1

The construction of the HSE Replacement mental health facilities is the key to unlocking the rest of the Grangegorman site for development.

The timing imperative of this tranche, allied with the substantial design work that has been advanced to date by the GDA, means that it would be more suited to a traditional procurement (employer design). Under employer design it will be possible to carry out substantial detailed design work during the period when planning permission is being sought and thereby move more quickly to construction.

8.4.4 DIT core educational facilities – Tranche 1

DIT Property disposal can be utilized for the initial buildings packages that would follow on from the infrastructure procurement. Property disposal will need to be carefully aligned with decanting/vacating constraints and the minimization of leaseback costs.

Certain new facilities, in terms of their size and nature, lend themselves to PPP procurement. This would also reduce the extent of Government Grant needed in the early years of delivery.

The strategy for each building component of the DIT core is summarized in the table below followed by explanatory paragraphs.

Packages 1A & 1B - Infrastructure

Infrastructure delivery has been split into 2 delivery tranches and, furthermore, each tranche of infrastructural works has been divided into main works and finishing works. This division spreads the cost of infrastructure and its allied funding requirement over time.

The modest size of the enabling infrastructure together with its staged delivery pattern means that the most appropriate and cost effective procurement option would be traditional procurement (employer design). That would require funding to be available as the construction work is progressing. The source of this funding would necessarily have to come from the disposal of the DIT properties or Government Grant.

The strategy for disposal of DIT property favours delaying this disposal process for a period in order to capitalise on the potential for an economic upturn in the property sector and thereby realize best value. For this reason it is considered that the enabling base infrastructure works would be best funded in the main by the use of the Government Grant. A finishing element to the infrastructure

Package	Build Element	Propoed Procurement method	Proposed Funding
DIT Tranche 1			
DIT Design costs			Government Grant and DIT property disposal
1A	Tranche 1 Infrastructure	Employer Design	Government Grant
1B	Tranche 1 Finishing	Employer Design	Government Grant and DIT property disposal
2A	Tourism, Food & Science,	PPP	PPP Government Credits and DIT savings
2B	Business & Library, Data Centre	Employer Design	DIT Property Portfolio
2C	Student Services	Design and Build	DIT Property Portfolio and DIT savings/philanthropy
2F	Applied Arts	PPP	DIT savings and philanthropy
2G	Building Main & Cafeteria	Employer Design	DIT Property Portfolio
2H	Sports	Employer Design	DIT Property Portfolio & Student Fund

works will be funded from DIT property disposal.

Other infrastructure costs that would follow and would support other development on the site will be borne by those developments.

Package 2A - Science and Tourism and Food

Package 2A has no protected structures to be dealt with in this build and this package therefore particularly lends itself to the PPP model where design and construction innovation can reduce whole life costs. Also its scale of build makes it appropriate for PPP and matches previous successful practice in the Irish market. It is proposed that it be funded by Government PPP credits and DIT savings/Philanthropy.

Package 2B - Business College, Library and Data Centre

This College is planned at the western end of the site where there is a complex infrastructure interface. It will be one of the earliest procurement packages as this location is available for early build given that there are no existing HSE services operated at that location. The proposed procurement method is traditional employer design particularly as a key component of this build is the refurbishment and integration of the large Upper House protected structure. It will be funded by DIT property disposals.

Package 2C - DIT Student Services within Other Use Buildings

There are certain core elements that are planned to be in the ground floor of the student housing namely a portion of student union, student support and cafeteria that will and will be funded via the proceeds from DIT property disposal. The Student Housing is anticipated to be delivered on the basis of a third party income stream through a commercial joint venture and so these ancillary core elements would be delivered on a Design and Build basis within the joint venture contract. Funding would derive from DIT property disposals and DIT savings/Philanthropy.

Package 2E - Protected Structure Social Hub

The Student services spaces require very substantial conservation work on a wide range of nineteenth century listed buildings. This package would not be suitable for PPP as the rigid conservation constraints would result in the integrated DBFM value synergy not being realised. Similar reasons would lead to discounting Design & Build as a procurement type. The proposed procurement method is therefore by way of employer led design with the funding coming from DIT property disposals.



Package 2F - DIT Arts

The nature of the accommodation requirement for the Applied Arts lends itself to a new build PPP – it is a substantial new build without any particular complicating design, construction or operating feature. Funding will be achieved by a combination of recurrent DIT savings and philanthropy.

A time constraint exists in accessing this area of the site as it will not be free for development until HSE local clinical services have relocated to the HSE Phase 1 replacement facilities. This timing delay aligns well with realization of the DIT funding sources.

Package 2G - Building Maintenance and Cafeteria

Package 2G incorporates a cafeteria and a centre for buildings maintenance goods in and waste out. The intention is to procure this element of the building by employer design and to be funded by the disposal of DIT properties.

Package 2H - Sports

Approximately 2% of the current leasehold property portfolio area houses sports. Accordingly 2% of the property proceeds will be used to fund sports at Grangegorman. The excess costs for the fuller sports facilities are to be funded by the Student Development Fund and other sources. It will be procured traditionally by employer design.

8.4.5 HSE Tranche 2

HSE Tranche 2 includes a range of services for older persons, people with disabilities, other community care components and administration facilities.

The proposed procurement approach for HSE Tranche 2 will be clarified at the point at which funding is secured. Options include PPP and the use of HSE capital funds in line with the HSE's broader

national targeted programme for specific service improvements.

8.4.6 DIT Core Educational Facilities – Tranche 2

The 140,041 sq m allowed for DIT Core Educational facilities includes approximately 31,862 sq m for the relocation of DIT Engineering and Built Environment College which will be delivered in DIT Tranche 2. At a later stage it will be delivered either in part from DIT's own property and savings or in full if Government PPP credit were made available. These facilities are currently located at Bolton St. which is within close proximity to the Grangegorman site.

8.4.7 DIT complementary campus facilities

The proposed procurement approach for DIT non-core can only be finalised at the point at which funding is secured. The table sets out the anticipated procurement method at this stage.

Student Housing - The student housing has been the subject of particular study and the key issues are as follows:

- A commercial joint venture is viable subject to appropriate formulation of the agreement and is the recommended option
- The agreement should be devised to deliver quality of accommodation plus standards of operations and governance
- The agreement should incorporate structures to ensure the private sector developer meets standards of operation and governance required.

8.4.8 GDA – community related facilities

The proposed procurement approach for the GDA cost categories is by traditional procurement due to their small sizes and in order to match the phasing programme and to make use of the capital funding available.

8.4.9 Supporting Mixed Use Development

The area of land at the Broadstone edge of the Grangegorman site will be commercially developed by the GDA to create a funding resource for the HSE using a mix of commercial joint ventures and employer design procurement methods as appropriate at the time of development.

Build Element	Preferred Procurement method	Area m²
Student Housing	Commercial Joint Venture	57,000
Retail	Commercial Joint Venture	3,600
Industry Centre/Commercial Labs & Incubation	Commercial Joint Venture	10,800
Sports Centre	Employer Design	7,000
Performance space	Employer Design	3,600
Early Learning Centre	Employer Design	840
Research Centre (Utilising expansion space)	Employer Design	15,000
Total		97,840

Procurement Objective 1 – GDA will bundle elements in line with the Phasing Strategy and with reference to optimal procurement methodologies as determined by funding and cross funding aspects of the building elements

Procurement Objective 2 - GDA will ensure that procurement arrangements and contracts are designed to ensure delivery of a quality of built environment and an operational and maintenance management regime appropriate to the Project Vision.

Procurement Objective 3 - GDA will work closely with HSE, DIT, Government Departments, HEA and NDFA and other relevant parties to ensure the optimal procurement methodology that provides value for money for the State

8.5 Conclusion on Funding

The proposed roll out strategy of the development uses a mix of procurement mechanisms and funding methodologies to deliver the campus within the constraints faced (funding, buildability etc) and in a manner that meets the objectives of DIT and HSE. This approach can be reviewed and amended as the development iterates, to reflect the outcome of funding sources and assumptions that under-pin the financial model.

Appropriate risk management is incorporated in the strategy through the following features:

- Discrete packages that allow for phased delivery
- Clarity of funding sources for each package package cannot proceed if funding source does not materialize
- Application of suitable procurement models based on good market experience.

There is substantial circular flow of Government funds through the payment of indirect and direct taxes.

It is possible to deliver development of the site by interchanging the mix of funding for the packages; this can be reviewed as the project develops.