![QQI Quality and Qualifications Ireland / Dearbhú Cáilíochta agus Cáilíochtaí Éireann]

Independent Evaluation Report on an Application for Validation of a Programme of Education and Training

Part 1

Provider name	Dublin Business School (DBS)
Date of site visit	26/06/2017 and 27/06/2017
Date of report	12 July 2017

Overall recommendations

Principal programme	Title	Higher Diploma in Science in Financial Technology (FinTech)
	Award	Higher Diploma
	Credit	60 ECTS
	Recommendation *Satisfactory OR Satisfactory subject to proposed conditions[1] OR Not Satisfactory*	Not Satisfactory

Embedded programme	Title	Not applicable
	Award	
	Credit	
	Recommendation *Satisfactory OR Satisfactory subject to*	

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[1] Normally an application that fails to meet the criteria in any of its aspects will be considered as not satisfactory. Nevertheless, so as to ensure that the validation process will not be implemented unreasonably, if an independent evaluation finds that a programme virtually meets the validation criteria but needs some minor modifications, the independent evaluation could conclude "Satisfactory subject to recommended special conditions" where the special conditions prescribe the defects that require to be corrected.

Further, in exceptional cases the 'special conditions' may be used to identify parts of the application that are considered satisfactory on a stand-alone basis. For example, an application might propose a programme to be provided at two locations but the independent evaluation report may find the application satisfactory on condition that it be provided only at one specified location and not at the other. These conditions will not however be used to recommend that QQI can be satisfied with a programme conditional on a different QQI award (e.g. at a lower NFQ level or having a different CAS award title) being sought than the one identified in the application.

	proposed conditions OR Not Satisfactory	

Module[2]	Title	
	Award	
	Credit	
	Recommendation *Satisfactory OR Satisfactory subject to proposed conditions OR Not Satisfactory*	

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[2] Discrete modules are only validated on a stand-alone basis if they are to lead to a QQI award.

Evaluators

Evaluators		
Name	**Role**	**Affiliation**
Dr Dermot J Douglas	Chair QA, National Standards, Award Standards, validation Policy and Procedure	HE Consultant and former Director of Academic Affairs, Institutes of Technology Ireland (now THEA), and former Registrar of Institute of Technology Tallaght
Dr Campbell R Harvey	Programme, subject and Business expertise - Desk Review	Professor of International Business, Fuqua School of Business, Duke University, USA
Dr Mary Daly	Programme, Subject and Business expertise	Lecturer and researcher in Business Information Systems, School of Business, Cork University
Dr Mark Cummins	Programme, Subject and Business expertise	Professor of Finance, Business School and Head of the Economics, Finance and Entrepreneurship Academic Group at Dublin City University
Cillian Leonowicz MBS	Industry Expert in FinTech and Blockchain	Senior Manager, Consulting, Deloitte, EMEA Grid Blockchain Lab Business Development EMEA Grid FinTech Team Investment Management Consulting
Dr Aidan Duane	Programme and Subject expertise	Lecturer in Business Information Systems Waterford Institute of Technology specialising in FinTech, Data Modelling and Analytics and Business Intelligence.
Enda Stafford BSc, Dip Project Mgt, HDip Data Analytics,	Student Representative	Data Analytics Master student , National College of Ireland

Principal Programme: Higher Diploma in Science in Financial Technology

Names of centres where the programmes are to be provided	Maximum number of learners *(per centre)*	Minimum number of learners
DBS Campus (Dublin)	100 - 50ft/50pt	20 – 10 ft/10 pt

| Regional Centre 1 (e.g. Galway) | 100 - 50ft/50pt | 20 – 10 ft/10 pt |
| Regional Centre 2 (e.g. Cork, Kerry) | 100 - 50ft/50pt | 20 – 10 ft/10 pt |

Enrolment interval *(normally 5 years)*	**Date of first intake**	September 2017
	Date of last intake	September 2021
Maximum number of annual intakes	2 (September and January)	
Maximum total number of learners per intake	100 (50 full-time, 50 part-time)	
Programme duration (months from start to completion)	18th September to 14th May (including examination weeks). This is equal to 8 months given the start in the middle of September and the finish in mid-May.	
Target learner groups	Learners holding a Level 8 qualification in any discipline who wish to transfer to the world of FinTech.	
Approved countries for provision	Ireland	
Delivery mode: Full-time/Part-time	Full-time and Part-Time	
The teaching and learning modalities	1. Class room lectures 2. Case Based learning 3. Practical Skills Sessions 4. Workshops 5. Tutorials 6. Individual and Group work	
Brief synopsis of the programme (e.g. who it is for, what is it for, what is involved for learners, what it leads to.)	This is an interdisciplinary program that focuses on finance, data analytics and computing. It is designed to appeal to graduates seeking to enhance their career prospects in FinTech - the technology enabled business model innovation in the financial sector. It leads to a Higher Diploma in Science in Financial Technology (FinTech)	
Summary of specifications for teaching staff	Masters and/or PhD level in the following areas • Finance: Financing, treasury, research, trading, data analytics & lecturing financial theory & practice. • Computing: Information security, cloud computing and computer networking. • Business intelligence, predictive analytics, data management and software engineering. Prince 2 accredited IT Project Manager. • Financial Economics: Development and execution of strategic initiatives designed to improve business performance, creator of data-driven solutions to critical business needs • Data Mining and Business Intelligence, Operations Research: Data Scientist, Programming Languages, Data Mining tools	

	expertise, development & Data environments and applications
Summary of specifications for the ratio of learners to teaching-staff	1/50 In Class room sessions 1/25 In Workshops 1/25 In Practical Sessions

Programmes being replaced (applicable to applications for revalidation)		
Code	**Title**	**Last enrolment date**
	Not applicable	

Embedded programme[3]

Names of centres where the programmes are to be provided	**Maximum number of learners** *(per centre)*	**Minimum number of learners**
Not Applicable		

Enrolment interval *(normally 5 years)*	**Date of first intake**	
	Date of last intake	
Maximum number of annual intakes	Not Applicable	
Maximum total number of learners per intake	Not Applicable	
Programme duration (months from start to completion)	Not Applicable	
Target learner groups	Not Applicable	
Approved countries for provision		
Delivery mode: Full-time/Part-time		
The teaching and learning modalities		
Brief synopsis of the programme (e.g. who it is for, what is it for, what is involved for learners, what it leads to.)		
Summary of specifications for teaching staff		
Summary of specifications for the ratio of learners to teaching-staff		

Programmes being replaced (applicable to applications for revalidation)

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[3] This only needs to be completed where embedded programmes may be offered independently of the principal programme. Add more subsections if there are more than one embedded programmes proposed to lead to QQI awards.

Code	Title	Last enrolment date
	Not Applicable	

Module[4]

DBS state on page 17 of their submission, paragraph 1.4 "**Each of the following modules** (*note: we take this to mean all the taught modules on the programme, other than the FinTech Applied Project, but this is unclear*) **will be offered as a standalone module of value 10 ECTS"**. The template has been completed in respect of all modules other than the FinTech Applied Project. It is clear from the QQI policy that this section need not be completed unless modules were to lead to a QQI award. Given that and the fact that DBS mentioned offering each module separately under this heading, the analysis below has been completed.

1. e-Finance & Financial Services

Names of centres where the programmes are to be provided	Maximum number of learners *(per centre)*	Minimum number of learners
Unclear from the document	Not given in the document	Not given in the document

Enrolment interval *(normally 5 years)*	Date of first intake	September 2017
	Date of last intake	September 2021
Maximum number of annual intakes	No information provided, other than a general statement for the Principal programme	
Maximum total number of learners per intake	No information provided, other than a general statement for the Principal programme	
Programme duration (months from start to completion)	Approx. 3 months or one semester	
Target learner groups	Continuing Professional Development hours for Practicing Accountants and other professions.	
Approved countries for provision	Ireland	
Delivery mode: Full-time/Part-time	Unclear from submission	
The teaching and learning modalities	Only general modes are indicated in the document. 1. Class room lectures 2. Case Based learning 3. Practical Skills Sessions 4. Workshops 5. Tutorials 6. Individual and Group work	

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[4] This only needs to be completed where modules may be offered independently. Add more subsections if there are more than one modules proposed to lead to QQI awards.

Brief synopsis of the programme (e.g. who it is for, what is it for, what is involved for learners, what it leads to.)	These aspects are not dealt with in the document in respect of any of the stand-alone modules.
Summary of specifications for teaching staff	Staff involved in this module will be qualified in an appropriate disciple to a minimum of a Level 9. They will have experience in guiding learners through the applications in e-Finance and Financial Services.
Summary of specifications for the ratio of learners to teaching-staff	1/50 In Class room sessions 1/25 In Workshops 1/25 In Practical Sessions

Programmes being replaced (applicable to applications for revalidation)		
Code	**Title**	**Last enrolment date**
	Not Applicable	

2. Data Management & Cybersecurity

Names of centres where the programmes are to be provided	**Maximum number of learners** *(per centre)*	**Minimum number of learners**
Unclear from the document	Not given in the document	Not given in the document

Enrolment interval *(normally 5 years)*	**Date of first intake**	September 2017
	Date of last intake	September 2021
Maximum number of annual intakes	No information provided, other than a general statement for the Principal programme	
Maximum total number of learners per intake	No information provided, other than a general statement for the Principal programme	
Programme duration (months from start to completion)	Approx. 3 months or one semester	
Target learner groups	Continuing Professional Development hours for Practicing Accountants and other professions.	
Approved countries for provision	Ireland	
Delivery mode: Full-time/Part-time	Unclear from submission	
The teaching and learning modalities	Only general modes are indicated in the document. 1. Class room lectures 2. Case Based learning 3. Practical Skills Sessions 4. Workshops 5. Tutorials 6. Individual and Group work	
Brief synopsis of the programme (e.g. who it is for, what is it for,	These aspects are not dealt with in the document in respect of any of the stand-alone modules.	

what is involved for learners, what it leads to.)	
Summary of specifications for teaching staff	Staff involved in this module will be qualified in an appropriate disciple to a minimum of a Level 9. They will have experience in guiding learners through a similar module.
Summary of specifications for the ratio of learners to teaching-staff	1/50 In Class room sessions 1/25 In Workshops 1/25 In Practical Sessions

Programmes being replaced (applicable to applications for revalidation)		
Code	**Title**	**Last enrolment date**
	Not Applicable	

3. FinTech Applications

Names of centres where the programmes are to be provided	Maximum number of learners *(per centre)*	Minimum number of learners
Unclear from the document	Not given in the document	Not given in the document

Enrolment interval *(normally 5 years)*	**Date of first intake**	September 2017
	Date of last intake	September 2021
Maximum number of annual intakes	No information provided, other than a general statement for the Principal programme	
Maximum total number of learners per intake	No information provided, other than a general statement for the Principal programme	
Programme duration (months from start to completion)	Approx. 3 months or one semester	
Target learner groups	Continuing Professional Development hours for Practicing Accountants and other professions.	
Approved countries for provision	Ireland	
Delivery mode: Full-time/Part-time	Unclear from submission	
The teaching and learning modalities	Only general modes are indicated in the document. 1. Class room lectures 2. Case Based learning 3. Practical Skills Sessions 4. Workshops 5. Tutorials 6. Individual and Group work	
Brief synopsis of the programme (e.g. who it is for, what is it for, what is involved for learners, what it leads to.)	These aspects are not dealt with in the document in respect of any of the stand-alone modules.	

Summary of specifications for teaching staff	Staff involved in this module will be qualified in an appropriate disciple to a minimum of a Level 9. They will have experience in guiding learners through a similar module
Summary of specifications for the ratio of learners to teaching-staff	1/50 In Class room sessions 1/25 In Workshops 1/25 In Practical Sessions

Programmes being replaced (applicable to applications for revalidation)		
Code	Title	Last enrolment date
	Not Applicable	

4. Financial Regulatory Environment

Names of centres where the programmes are to be provided	Maximum number of learners *(per centre)*	Minimum number of learners
Unclear from the document	Not given in the document	Not given in the document

Enrolment interval *(normally 5 years)*	Date of first intake	September 2017
	Date of last intake	September 2021
Maximum number of annual intakes	No information provided, other than a general statement for the Principal programme	
Maximum total number of learners per intake	No information provided, other than a general statement for the Principal programme	
Programme duration (months from start to completion)	Approx. 3 months or one semester	
Target learner groups	Continuing Professional Development hours for Practicing Accountants and other professions.	
Approved countries for provision	Ireland	
Delivery mode: Full-time/Part-time	Unclear from submission	
The teaching and learning modalities	Only general modes are indicated in the document. 1. Class room lectures 2. Case Based learning 3. Practical Skills Sessions 4. Workshops 5. Tutorials 6. Individual and Group work	
Brief synopsis of the programme (e.g. who it is for, what is it for, what is involved for learners, what it leads to.)	These aspects are not dealt with in the document in respect of any of the stand-alone modules.	

Summary of specifications for teaching staff	Staff involved in this module will be qualified in an appropriate disciple to a minimum of a Level 9. They will have experience in guiding learners through a similar module
Summary of specifications for the ratio of learners to teaching-staff	1/50 In Class room sessions 1/25 In Workshops 1/25 In Practical Sessions

Programmes being replaced (applicable to applications for revalidation)		
Code	Title	Last enrolment date
	Not Applicable	

5. Big Data & Financial Analysis

Names of centres where the programmes are to be provided	Maximum number of learners (per centre)	Minimum number of learners
Unclear from the document	Not given in the document	Not given in the document

Enrolment interval (normally 5 years)	Date of first intake	September 2017
	Date of last intake	September 2021
Maximum number of annual intakes	No information provided, other than a general statement for the Principal programme	
Maximum total number of learners per intake	No information provided, other than a general statement for the Principal programme	
Programme duration (months from start to completion)	Approx. 3 months or one semester	
Target learner groups	Continuing Professional Development hours for Practicing Accountants and other professions.	
Approved countries for provision	Ireland	
Delivery mode: Full-time/Part-time	Unclear from submission	
The teaching and learning modalities	Only general modes are indicated in the document. 1. Class room lectures 2. Case Based learning 3. Practical Skills Sessions 4. Workshops 5. Tutorials 6. Individual and Group work	
Brief synopsis of the programme (e.g. who it is for, what is it for, what is involved for learners, what it leads to.)	These aspects are not dealt with in the document in respect of any of the stand-alone modules.	
Summary of specifications for teaching staff	Staff involved in this module will be qualified in an appropriate disciple to a minimum of a Level 9. They will	

	have experience in guiding learners through a similar module
Summary of specifications for the ratio of learners to teaching-staff	1/50 In Class room sessions 1/25 In Workshops 1/25 In Practical Sessions

Programmes being replaced (applicable to applications for revalidation)		
Code	**Title**	**Last enrolment date**
	Not Applicable	

Part 1A Evaluation of the Case for an Extension of the Approved Scope of Provision (where applicable).

Part 1A, does not normally require completion, and only needs to be addressed when the proposed new programme extends of the scope of provision.

After a provider has had a programme validated it may seek to extend the approved scope of provision by applying for validation of a programme that extends the scope. A more elaborate evaluation process may be required when scope is to be extended. This may require the provider to first modify its quality assurance procedures to extend their scope and have these approved by QQI.

Validation alone may extend the scope to a limited extent (e.g. within the provider's existing approved QA procedures).

1 Comment on the case for extending the applicant's Approved Scope of Provision to enable provision of this programme.

DBS has indicated that it may wish to extend the scope of the programme to two new Regional Centres. It has currently not identified locations or facilities that might be available. It does not currently have specific Policy or Procedure in its approved Quality Assurance Handbook to cover the evaluation and approval of additional centres. It identifies some of the issues involved in Section 8.4 of the document, but this has yet to be approved by the Academic Board and formally incorporated into the QAH.

Approval of Regional Centres has yet to be undertaken by DBS, so in the absence of information upon which it could make a judgement, the panel could not consider extending validation to centres which do not yet exist. Section 17 of QQIs "*Policies and criteria for the validation of programmes of education and training*" (April 2016) clearly states that where providers wish to offer programmes in multiple centres "Such providers will be expected to have QA procedures for determining which centres have the capacity and capability to provide the programmes." Section 8 of the same document is also relevant here. In extending validation to new centres DBS must first develop robust QA procedures for handling the introduction of new centres, adopt them through internal College QA change approval processes and then obtain QQI approval. Once this has been done then the College will be free under existing QQI policies and criteria to offer its programmes in additional centres.

Part 2 Evaluation against the validation criteria

QQI's validation criteria and sub-criteria are copied here in grey panels.

Criterion 1

The provider is eligible to apply for validation of the programme
    a) The provider meets the prerequisites (section 44(7) of the 2012 Act) to apply for validation of the programme.
    b) The application for validation is signed by the provider's chief executive (or equivalent) who confirms that the information provided is truthful and that all the applicable criteria have been addressed.
    c) The provider has declared that their programme complies with applicable statutory, regulatory and professional body requirements.[5]	

Satisfactory (yes, no, partially)	**Comment**
Yes	

Principal programme: Higher Diploma in Science in Financial Technology

No comment

Embedded programme[6]

There are no embedded programmes

Module leading to a QQI award[7]

NOTE: Each of the modules is intended to be offered as stand-alone carrying a value of 10 ECTS. It is unclear whether DBS regards these as Minor Awards in the sense of the NFQ. It may be that DBS misunderstood the intent of this section and simply intended these modules to receive transcript credit. Little detail is provided if they were intended to be individual awards. The footnote in the document makes it clear that the section only needs to be completed where independently offered modules are proposed to lead to a QQI award. As no additional awards are specified the panel treated these modules, even when offered on a stand-alone basis, simply as components of the major award.

Criterion 2

The programme objectives and outcomes are clear and consistent with the QQI awards sought   a) The programme aims and objectives are expressed plainly.

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[5] This criterion is to ensure the programme can actually be provided and will not be halted on account of breach of the law. The declaration is sought to ensure this is not overlooked but QQI is not responsible for verifying this declaration of enforcing such requirements.

[6] Add more subsections if there are more than one embedded programmes.

[7] Add more subsections if there are more than one modules proposed to lead to QQI awards.

b)	A QQI award is specified for those who complete the programme.
	(i) Where applicable, a QQI award is specified for each embedded programme.
c)	There is a satisfactory rationale for the choice of QQI award(s).
d)	The award title(s) is consistent with unit 3.1 of QQI's *Policy and Criteria for Making Awards*.
e)	The award title(s) is otherwise legitimate for example it must comply with applicable statutory, regulatory and professional body requirements.
f)	The programme title and any embedded programme titles are
	(i) Consistent with the title of the QQI award sought.
	(ii) Clear, accurate, succinct and fit for the purpose of informing prospective learners and other stakeholders.
g)	For each programme and embedded programme
	(i) The **minimum intended programme learning outcomes** and any other educational or training objectives of the programme are explicitly specified.[8]
	(ii) The minimum intended programme learning outcomes to qualify for the QQI award sought are **consistent with** the relevant QQI awards standards.
h)	Where applicable, the **minimum intended module learning outcomes** are explicitly specified for each of the programme's modules.
i)	Any QQI minor awards sought for those who complete the modules are specified, where applicable.

For each minor award specified, the minimum intended module learning outcomes to qualify for the award are consistent with relevant QQI minor awards standards.[9]

Satisfactory (yes, no, partially)	Comment
partially	**The Rationale for the choice of the Higher Diploma in Science in Financial Technology is clear – the Programme Development Team maintain that it is firmly rooted in the mathematical and technological focus of the programme**

Principal programme: Higher Diploma in Science in Financial Technology

1. The panel is concerned that the choice of the Level 8 Science standard is not adequately underpinned by the level of skills required by the standard. The skills base being imparted to students is not supported by the amount of computer technology /FinTech in the programme beyond that provided in data analytics.

2. Given the stated aim of the programme that '*with heightened emphasis on problem solving for their project, the **modules focus** upon enabling learners develop real solution focused applications and utilise the core technologies of FinTech*', it is difficult to understand the concentration in assessment on the essay format.

Embedded programme
There are no embedded awards
Module leading to a QQI award
No QQI awards are specified for individual modules. See Criterion 1 above

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[8] Other programme objectives, for example, may be to meet the educational or training requirements of a statutory, regulatory or professional body.

[9] Not all modules will warrant minor awards. Minor awards feature strongly in the QQI common awards system however further education and training awards may be made outside this system.

Criterion 3

The programme concept, implementation strategy, and its interpretation of QQI awards standards are well informed and soundly based (considering social, cultural, educational, professional and employment objectives)

a) The development of the programme and the intended programme learning outcomes has sought out and taken into account the views of stakeholders such as learners, graduates, teachers, lecturers, education and training institutions, employers, statutory bodies, regulatory bodies, the international scientific and academic communities, professional bodies and equivalent associations, trades unions, and social and community representatives.[10]

b) The interpretation of awards standards has been adequately informed and researched; considering the programme aims and objectives and minimum intended programme (and, where applicable, modular) learning outcomes.
   - (i) There is a satisfactory rationale for providing the programme.
   - (ii) The proposed programme compares favourably with existing related (comparable) programmes in Ireland and beyond. Comparators should be as close as it is possible to find.
   - (iii) There is support for the introduction of the programme (such as from employers, or professional, regulatory or statutory bodies).
   - (iv) There is evidence[11] of learner demand for the programme.
   - (v) There is evidence of employment opportunities for graduates where relevant[12].
   - (vi) The programme meets genuine education and training needs.[13]

c) There are mechanisms to keep the programme updated in consultation with internal and external stakeholders.

d) Employers and practitioners in the cases of vocational and professional awards have been systematically involved in the programme design where the programme is vocationally or professionally oriented.

e) The programme satisfies any validation-related criteria attaching to the applicable awards standards and QQI awards specifications.

Satisfactory (yes, no, partially)	Comment
No	See below in relation to the principal programme

Principal programme: Higher Diploma in Science in Financial Technology

1. The development of the programme and its intended learning outcomes was weak in seeking the views of stakeholders, particularly employers, learners and graduates in the initial design stage. Much of the interaction with employers appeared to have been *post facto*, after the programme had been developed in house in DBS, with the opinion of employers being sought on the finished proposal rather than inviting them to contribute to an initial needs analysis. The consultation with learners and graduates was extremely limited to non-existent.

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[10] Awards standards however detailed rely on various communities for their interpretation. This consultation is necessary if the programme is to enable learners to achieve the standard in its fullest sense.

[11] This might be predictive or indirect.

[12] It is essential to involve employers in the programme development and review process when the programme is vocationally or professionally oriented.

[13] There is clear evidence that the programme meets the **target learners'** education and training needs and that there is a clear demand for the programme.

2. While there is an identified need for FinTech expertise in Ireland, the rationale for providing this programme appears very generalised and to have been based entirely on a limited number of reports. The programme team pointed to a need for "suitably qualified graduates" but never identified what the characteristics of a graduate at this level of qualification from this type of programme would be and what type of role they would play in the industry. The programme proposal failed to indicate the number and type of employment opportunities that have been advertised for FinTech graduates, with this level of knowledge, skill and competence, in the recent past or describe the attributes a graduate at this level of award would possess.

3. Although p.34 and 35 purport to highlight the involvement of employers and practitioners in the design of this programme, the first 'testimonial' refers to Fund Administrators – Funds management is not part of this programme; another testimonial relates to building trading systems through programmes like Java – Java is not an element of this programme; the third of four 'testimonials' points to '*the structural move towards robotics, automation, Artificial intelligence, machine learning, data architecture within financial services means that companies require employees who can work across these technical areas but also have the requisite product knowledge. This is where the current disparity in skills lies;*' with the possible exception of some data architecture, none of these skill deficit areas are addressed by the programme. This considerably weakens the case that the programme is actually meeting the skill shortages described in the validation document. There is no evidence of any real engagement with employers in the design of this programme anywhere in the document.

4. Comparison involved only one other programme – that offered by NCI. This was mainly descriptive. There are important differences between the two programmes not mentioned in the submission document. The description of two NCI modules is synopsized in the submission and does not cover everything mentioned by NCI in their module descriptors on "Coursebuilder". The content of modules is significantly different between the two programmes. The fact that the NCI programme runs over **three** semesters is a significant difference. The DBS programme is intended to run only over **two** semesters (see pp. 48, 50, 64, 65, 69 (module descriptor p 69 states the capstone project will be completed in Semester 2 and its duration is one academic semester). Additionally, the NCI programme describes the roles graduates could occupy. The NCI programme was designed in consultation with industry to provide graduates with relevant skills; it is carried out in conjunction with the Summit Finuas Network - a national network of partner associations and companies operating in the international financial services industry in Ireland.

5. There is no **explicit** support for the introduction of **this** programme from employers, professional, regulatory or statutory bodies. Section 3.7 of the submission provides generalised comment on the desirability of programmes in FinTech.

6. The employment opportunities for graduates is stated only in terms of a list of companies that are currently recruiting (but no indication of the areas in which they are recruiting and a generalised statement from Recruitment agencies (unnamed) that there is a rise in companies looking for these (presumably FinTech) skills.

7. The programme document is unconvincing in that **this** programme meets a genuine identified education and training need.

8. While section 3.14 lists the consultation with industry partners and sector professionals on an ongoing or annual basis, the lack of this type of consultation in the design of the programme hints that clear mechanisms for this type of feedback and incorporation of this

type of business intelligence into the programme have yet to be worked out. This is a serious omission in the document.

9. There is little evidence of innovation being explored/applied in this programme.
10. There is little evidence of computing in the programme.
11. There is lack of clarity as to how this '*interdisciplinary programme that focuses on finance, data analytics and computing*' intersects with the competency expected for a Level 8 Science award.

Criterion 4

The programme's access, transfer and progression arrangements are satisfactory

a) The information about the programme as well as its procedures for access, transfer and progression are consistent with the procedures described in QQI's policy and criteria for access, transfer and progression in relation to learners for providers of further and higher education and training. Each of its programme-specific criteria is individually and explicitly satisfied[14].

b) Programme information for learners is provided in plain language. This details what the programme expects of learners and what learners can expect of the programme and that there are procedures to ensure its availability in a range of accessible formats.

c) If the programme leads to a higher education and training award and its duration is designed for native English speakers, then the level of proficiency in English language must be greater or equal to B2+ in the Common European Framework of Reference for Languages (CEFRL[15]) in order to enable learners to reach the required standard for the QQI award.

d) The programme specifies the learning (knowledge, skill and competence) that **target learners** are expected to have achieved before they are enrolled in the programme and any other assumptions about enrolled learners (programme participants).

e) The programme includes suitable procedures and criteria for the **recognition of prior learning** for the purposes of access and, where appropriate, for advanced entry to the programme and for exemptions.

f) The programme title (the title used to refer to the programme):-
   (i) Reflects the core *intended programme learning outcomes*, and is consistent with the standards and purposes of the QQI awards to which it leads, the award title(s) and their class(es).
   (ii) Is learner focused and meaningful to the learners;
   (iii) Has long-lasting significance.

g) The programme title is otherwise legitimate; for example, it must comply with applicable statutory, regulatory and professional body requirements.

Satisfactory (yes, no, partially)	Comment
Partially	**No Transfer routes into or out of the programme have been identified.** **Potential progression destinations have been listed but, given the stated highly specialised nature of this programme and the lack of any minimum level of business knowledge, it is moot if all graduates from this programme would be able to successfully gain entry to any**

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[14] Each of the detailed criteria set out in the Policy and criteria for access, transfer and progression in relation to learners for providers of further and higher education and training must be addressed in the provider's evaluation report. The detailed criteria are (QQI, restated 2015) arranged under the headings
- Progression and transfer routes
- Entry arrangements
- Information provision

[15] http://www.coe.int/t/dg4/linguistic/Source/Framework_EN.pdf (accessed 26/09/2015)

	of the programmes listed, other than those offered by DBS and NCI. There is no evidence that the listed progression routes were included following any discussion with the relevant providers.

Principal programme: Higher Diploma in Science in Financial Technology

1. The minimum entry requirements for the programme viz. any Level 8 award and a H7/O5 grade in Leaving Certificate mathematics are not consistent with ensuring that learners admitted onto the programme would have the pre-requisite knowledge, skill and competence to succeed in a programme based on a high level of mathematics and technology. For some learners this would be a fatal flaw. Statements of a realistic level of the knowledge, skill and competence needed as a basis for successful participation are absent, and there is insufficient comparability in the factors defined for the only similar programme identified in that it emphasises **the technical nature of the programme and the requirement, given content and timescale, for commitment, a willingness to engage fully with the technical content and the requirement for a significant amount of independent study (our summary and emphasis)**. Information on similar challenges inherent in this programme is not available in the programme documentation.

2. The programme development team did not give a convincing account as to how full-time or part-time students with minimal mathematical and technical skills would be facilitated through the advanced scientific material.

3. The programme does not specify the learning (knowledge, skill and competence) that target learners are expected to have achieved before they are enrolled in the programme or any other assumptions about enrolled learners.

4. The programme development team should re-consider the entry requirements and perhaps stipulate a cognate discipline requirement that ensures a level of mathematical competency over and above pass Leaving Certificate mathematics.

5. The programme title is compromised by the fact that the syllabus is light on some key FinTech content. Examples include blockchain, an introduction to machine learning, AES encryption, hashing etc.

6. The programme as designed is insufficiently analytical in nature to be a Higher Diploma in Science degree. The panel is of the view that it would be more appropriate if it were redesigned as a Higher Diploma in Business.

Criterion 5

The programme's written curriculum is well structured and fit-for-purpose
a) The programme is suitably structured and coherently oriented towards the achievement by learners of its intended programme learning outcomes. The programme (including any stages and modules) is integrated in all its dimensions.
b) In so far as it is feasible the programme provides choice to enrolled learners so that they may align their learning opportunities towards their individual educational and training needs.
c) Each module and stage is suitably structured and coherently oriented towards the achievement by learners of the intended *programme* learning outcomes.
d) The objectives and purposes of each of the programme's elements are clear to learners and to the provider's staff.

e)	The programme is structured and scheduled realistically based on sound educational and training principles[16].
	f) The curriculum is comprehensively and systematically documented.
	g) The credit allocated to the programme is consistent with the difference between the entry standard and minimum intended programme learning outcomes.
	h) The credit allocated to each module is consistent with the difference between the module entry standard and minimum intended module learning outcomes.
	i) Elements such as practice placement and work based phases are provided with the same rigour and attentiveness as other elements.
	j) The programme duration (expressed in terms of time from initial enrolment to completion) and its fulltime equivalent contact time (expressed in hours) are consistent with the difference between the minimum entry standard and award standard and with the credit allocation.[17]

Satisfactory (yes, no, partially)	Comment
Partially	

Principal programme: Higher Diploma in Science in Financial Technology

1. There is unevenness in the balance between knowledge and skills in the programme – it appears to be heavily weighted on the knowledge side.

2. There is little evidence of computing in the programme resulting in an imbalance. The emphasis is heavily on the finance side with very little technology.

3. It is not clear where and how the Personal and Professional Development that will enhance a student's employability and enable them integrate seamlessly into an organisation is incorporated within modules as stated on p.18. This is not clear in either the Aims or Learning Outcomes of any of the modules. There needs to be more evidence of development of leadership skills and teamwork in the module descriptors. The participation of industry in the programme delivery, given that the aim of the programme is clearly vocational, needs to be clarified. Group work/team work appears to only occur in the '**FinTech Applied Project**'. It is questionable practice to defer group work/team work to the final semester.

4. The criteria for validation state that '*In so far as it is feasible the programme provides choice to enrolled learners so that they may align their learning opportunities towards their individual educational and training needs*'. It was unclear to the panel as to the criteria that informed the choice **not** to offer any elective modules, in contrast to the NCI programme which offers five. The development team need to clearly justify this choice.

5. The submission document states in **Section 3.3 – Conceptual basis for the programme** the major importance meeting of development of entrepreneurial skills. However, there is little, if any, evidence in the submission document to indicate that entrepreneurial skills are addressed to any extent

6. Reading lists contain very few online references. This is a significant omission in a programme such as this.

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[16] This applies recursively to each and every element of the programme from enrolment through to completion.
In the case of a modular programme, the pool of modules and learning pathway constraints (such as any prerequisite and co-requisite modules) is explicit and appropriate to the intended programme learning outcomes.
[17] If the duration is variable, for example, when advanced entry is available, this should be explained and justified

7. Module descriptors do not indicate who the module leader is. This is concerning as it is impossible to match proposed teaching faculty knowledge and skills, from the attached CVs, to individual modules.
8. The style of giving indicative content in the modules as lists of bullet points provides little insight into what is actually being taught and the depth to which it is being taught. This makes it very difficult to determine how what is being taught matches up to the standard for the level and type of award being sought.

Module specific comments:

Note:

- In the book of modules, the module title should appear in the table of contents. It is difficult to navigate the curriculum in the absence of this.

e-Finance & Financial Services:

The module descriptor needs to be written more effectively. The opening description of the module needs to articulate better the objectives of the module and position itself better within the context of FinTech. The indicative content needs to give clarity around exactly what will be covered and its relevance in the context of FinTech. The programme development team should consider placing a greater focus on comparing the intermediary role of traditional capital markets and the disintermediary role of alternative financing. There should be a greater focus on the actors and participants within these respective markets. Under a Science Award designation, the module needs to have a discernible analytic dimension.

Data Management and Cybersecurity

This module fails to mention blockchain initiatives like Golem and Storj. It mainly focuses on legacy cybersecurity. There is no mention of salted hashing, encrypted communication, etc. Risk management is vague. There is no coverage of data management, whether that be Information Lifecycle Management, RAID, SAN, NAS, HDFS etc.Big Data & Financial Analysis

This is a module with significant mathematical and statistical content but it is not clear from the module descriptor how students will be facilitated through this advanced scientific material when coming from a non-cognate discipline. The module descriptor needs to be written more effectively. The opening description of the module needs to articulate better the objectives of the module and position itself better within the context of big data. The indicative content needs to give clarity around exactly what will be covered and its relevance in the context of big data. The module does not seem to cover all of the main big data analysis techniques, covering only regression and time series analysis – where it is not clear if students will focus on interpretation and/or implementation of these techniques. The module is a peculiar mix of financial mathematics and statistical concepts. The financial mathematics concepts are not relevant within a big data context and likely to be beyond the capability of the intended intake. The recommendation would be the remove this financial mathematics material. The statistical concepts need to be framed better around big data analysis.

FinTech Applications

The panel was of the view that the 'wealth management element' of the module is superfluous and should be removed. The programme team should also remove unnecessary duplication e.g. the overlap of Blockchain with this module and on week eleven in the e-Finance and Financial Services module. The short duration of the programme, 2 semesters, renders such overlap/duplication untenable.

Financial Regulatory Environment

The specific applicable directives should be outlined. DBS appears to have erred on the side of the generic to future –proof the module. However, learners will need to know what is applicable when they graduate. As regulations change, the module content can be modified to accommodate this.

FinTech Applied Project

No comment

1 Criterion 6

There are sufficient qualified and capable programme staff available to implement the programme as planned
   a) The specification of the programme's staffing requirements (staff required as part of the programme and intrinsic to it) is precise, and rigorous and consistent with the programme and its defined purpose. The specifications include professional and educational qualifications, licences-to practise where applicable, experience and the staff/learner ratio requirements.
   b) The programme has an identified complement of staff[18] (or potential staff) who are available, qualified and capable to provide the specified programme in the context of their existing commitments.
   c) The programme's complement of staff (or potential staff) (those who support learning including any employer-based personnel) are demonstrated to be competent to enable learners to achieve the intended programme learning outcomes and to assess learners' achievements as required.
   d) There are arrangements for the performance of the programme's staff to be managed to ensure continuing capability to fulfil their roles and there are staff development[19] opportunities[20].
   e) There are arrangements for programme staff performance to be reviewed and there are mechanisms for encouraging development and for addressing underperformance.
   f) Where the programme is to be provided by staff not already in post there are arrangements to ensure that the programme will not enrol learners unless a complement of staff meeting the specifications is in post.

Satisfactory (yes, no, partially)	Comment
partially	

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[18] Staff here means natural persons required as part of the programme and accountable (directly or indirectly) to the programme's provider, it may for example, include contracted trainers and workplace supervisors.

[19] Development here is for the purpose of ensuring staff remain up-to-date on the discipline itself, on teaching methods or on other relevant skills or knowledge, to the extent that this is necessary to ensure an adequate standard of teaching.

[20] Professional or vocational education and training requires that teaching staff's professional/vocation knowledge is up to date. Being qualified in a discipline does not necessarily mean that a person is currently competent in that discipline. Therefore, performance management and development of professional and vocational staff needs to focus on professional/vocational competence as well as pedagogical competence. Professional development may include placement in industry, for example. In regulated professions it would be expected that there are a suitable number of registered practitioners involved.

Principal programme: Higher Diploma in Science in Financial Technology

1. The College has identified a complement of staff and potential staff and has provided 6 out of 8 CVs. No guidelines are given as to individual staff responsibilities with this programme. Two modules state that Andrew Quinn is Module Leader. The remaining modules do not indicate who the Module Leader is. This creates concern as to whether the required expertise is present in the College. DBS stated in the document that it planned to recruit just under one whole-time equivalent (WTE) staff members (divided into two posts of 1 x 0.55 WTE and 1 x 0.43 WTE) in the areas of a) Finance and b) Financial Economics c) Computing: Information security, cloud computing and computer networking, and d) Business intelligence, predictive analytics, data management and software engineering. Prince 2 accredited IT Project Manager. Given that there are few of the skills indicated in (c) and (d) in the modules, it is unclear as to why a requirement for staff in these disciplines would be required.

2. Where staff are not already in post there is no assurance in the document or in the Quality Assurance Handbook that the College has arrangements to ensure that the programme will not enrol learners unless a complement of staff meeting the specifications is in post.

3. The specification of the qualifications and experience of staff involved in teaching the modules is generic and cursory to wit 'Staff *involved in this module will be qualified in an* ***appropriate*** *discipline to a minimum of a Level 9. They will have experience in guiding learners through a* ***similar*** *module*'. This is too vague to be useful in coming to a determination that staff are

   a) Qualified and capable to provide the specified programme in the context of their existing commitments.

   b) The programme's complement of staff (or potential staff) (those who support learning including any employer-based personnel) are demonstrated to be competent to enable learners to achieve the intended programme learning outcomes and to assess learners' achievements as required.

4. Experience in supervision of applied project work is not indicated anywhere in the document, nor is the limitation on the number of students a staff member can supervise. We were advised at the meeting that this was a maximum of five students, but the panel remains unclear as to whether this is five students on this programme or a total of five students across all the programmes on which a staff member teaches.

5. With the potential of enrolling up to 50 full-time and 50 part-time students in each year of operation, the panel has serious reservations that the College has both the capacity and the capability in its current staff complement to supervise learners adequately in their capstone project. Organising the capstone module on a group basis somewhat mitigates this problem. However, even with groups of five (the maximum number DBS permits a supervisor) the College would require 10 supervisors with knowledge in the FinTech domain. (9 Staff are identified in section 7 of the submission and CVs are provided for 6. The panel was introduced to two recent hires – giving a total complement of 11. Given that these staff members service other undergraduate and postgraduate programmes in Business and Computing, and will also have to provide supervision for students in the proposed masters of Science in Financial Technology, it is difficult to how the College could satisfactorily discharge its supervisory responsibility to each enrolled student – both full-time and part-

time. The panel were of the view that DBS needed to reconsider its intake based on this issue.

6. The recruitment plan for staff not already in post (p.68) indicates hiring a panel of suitably qualified academics and industry based personnel. It does not indicate what knowledge and skills gaps this will address.
7. The submission identified the need for additional members to be added to the existing faculty team, but did not indicate how many. The recruitment plan in section 9 (mentioned on p 16) was not in the document. The nature of the staffing deficit was not identified in the submission. However, since the document was submitted to QQI, two new members of staff have been appointed. Their CVs were not available to the panel.

Criterion 7

There are sufficient physical resources to implement the programme as planned

   a) The specification of the programme's physical resource requirements (physical resources required as part of the programme and intrinsic to it) is precise, and rigorous and consistent with the programme, its defined purpose and its resource/learner-ratio requirements. See also (**Error! Reference source not found.**d).
   b) The programme has an identified complement of supported physical resources (or potential supported physical resources) that are available in the context of existing commitments on these e.g. availability of:
      (i) suitable premises and accommodation for the learning and human needs (comfort, safety, health, wellbeing) of learners (this applies to all of the programme's learning environments including the workplace learning environment)
      (ii) suitable information technology and resources (including educational technology and any virtual learning environments provided)
      (iii) printed and electronic material (including software) for teaching, learning and assessment
      (iv) suitable specialist equipment (e.g. kitchen, laboratory, workshop, studio) – if applicable
      (v) technical support
      (vi) administrative support
      (vii) company placements/internships – if applicable
   c) If versions of the programme are provided in parallel at more than one location each independently meets the location-sensitive validation criteria for each location (for example staffing, resources and the learning environment).
   d) There is a five-year plan for the programme. It should address
      (i) Planned intake (first five years) and
      (ii) The total costs and income over the five years based on the planned intake.
   e) The programme includes controls to ensure entitlement to use the property (including intellectual property, premises, materials and equipment) required.

Satisfactory (yes, no, partially)	Comment
Yes	**Costs and income are only calculated for the main campus in Dublin and do not include any estimate for Regional Centres or single module accreditation. Specific policy and procedure needs to be agreed at the highest level (Academic Board, Senior Leadership and Board of Directors) in respect of selecting, approving, financing and resourcing new Regional Centres to ensure learners in these centres receive the same level of delivery and service as students on the main campus. This policy and procedure should be added to the QAH and approval sought from QQI, if necessary.**

Principal programme: Higher Diploma in Science in Financial Technology

Embedded programme

Module

Criterion 8

The learning environment is consistent with the needs of the programme's learners

   a) The programme's physical, social, cultural and intellectual environment (recognising that the environment may, for example, be partly virtual or involve the workplace) including resources and support systems are consistent with the intended programme learning outcomes.
   b) Learners can interact with, and are supported by, others in the programme's learning environments including peer learners, teachers, and where applicable supervisors, practitioners and mentors.
   c) The programme includes arrangements to ensure that the parts of the programme that occur in the workplace are subject to the same rigours as any other part of the programme while having regard to the different nature of the workplace.

Satisfactory (yes, no, partially)	Comment
Yes	**This is true only in the case of the Dublin Campus. As Regional Centres do yet not exist, the panel can make no determination with respect to them.**

Principal programme: Higher Diploma in Science in Financial Technology

Embedded programme

Module

2   Criterion 9

There are sound teaching and learning strategies

   a) The teaching strategies support achievement of the intended programme/module learning outcomes.
   b) The programme provides authentic learning opportunities to enable learners to achieve the intended programme learning outcomes.
   c) The programme enables enrolled learners to attain (if reasonably diligent) the minimum intended programme learning outcomes reliably and efficiently (in terms of overall learner effort and a reasonably balanced workload).
   d) Learning is monitored/supervised.

Satisfactory (yes, no, partially)	Comment
	e) Individualised guidance, support[21] and timely formative feedback is regularly provided to enrolled learners as they progress within the programme.
partially	See below

Principal programme: Higher Diploma in Science in Financial Technology

1 The panel has serious concerns that item (c) above is not addressed appropriately in the programme design. As mentioned earlier, it is not clear how students will be facilitated through modules with significant mathematical and statistical content and advanced scientific material when coming from a non-cognate discipline and who may also have poor prior achievement in mathematics. The participation of such students in some of the modules could be compromised and the workload for such students may be excessive if deficits are not identified and addressed.

2 The programme lacks clear plans for field visits and guest lecturers from industry. Page 53 alludes to guest lectures from leading industry experts. However, without even a tentative list of possible lecturers or outline agreements with relevant employers, this remains aspirational and unconvincing. As the programme was intended to operate from September 2017 it would be expected that at least a preliminary list would have been available.

3   Criterion 10

There are sound assessment strategies

a) All assessment is undertaken consistently with *Assessment Guidelines, Conventions and Protocols for Programmes Leading to QQI Awards*[22]

b) The programme's assessment procedures interface effectively with the provider's QQI approved quality assurance procedures.

c) The programme includes specific procedures that are fair and consistent for the assessment of enrolled learners to ensure the minimum intended programme/module learning outcomes are acquired by all who successfully complete the programme.[23]

d) The programme includes formative assessment to support learning.

e) There is a satisfactory written **programme assessment strategy** for the programme as a whole and there are satisfactory module assessment strategies for any of its constituent modules.[24]

f) Sample assessment instruments, tasks, marking schemes and related evidence have been provided for each award-stage assessment and indicate that the assessment is likely to be valid and reliable.

g) There are sound procedures for the moderation of summative assessment results.

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[21] Support and feedback concerns anything material to learning in the context of the programme. For the avoidance of doubt it includes among other things any course-related language, literacy and numeracy support.

[22] See the section on transitional arrangements.

[23] This assumes the minimum intended programme/module learning outcomes are consistent with the applicable awards standards.

[24] The programme assessment strategy is addressed in the Assessment Guidelines, Conventions and Protocols for Programmes Leading to QQI Awards. See the section on transitional arrangements.

h)	The provider only puts forward an enrolled learner for certification for a particular award for which a programme has been validated if they have been specifically assessed against the standard for that award.[25]
Satisfactory (yes, no, partially)	**Comment**
partially	See below

Principal programme: Higher Diploma in Science in Financial Technology

1. The panel was concerned at the narrow range of assessment instruments used and the workload being imposed on learners. Only generic terms were used for assessment strategy such as Assignment or Terminal Examination.

    Module 1 has two assignments and a terminal examination

    Module 2 has two assignments and a Terminal examination

    Module 3 has three assignments

    Module 4 has two assignments and a terminal examination

    Module 5 has two assignments and a terminal examination

    Module 6 has a Research Report, presentation and a Reflective Report.

2. There is nothing within the submission to ensure that all assignments in a particular semester do not fall due at the same time. DBS staff assured the panel that there were measures in place to avoid this, but with so much written material being required for assessment purpose such safeguards should have been included in the submission to enable the panel make an informed determination about assessment strategy.
3. Some of the sample assignments provided were of concern to the panel, in particular the one on 'bad banks'. FinTech is about the future of banking not a legacy problem like bad banks. P2P lending matches lenders and borrows. The P2P banks do not use their own equity for lending – they simply match people. Hence, this assignment is designed with legacy banking in mind – not the future.
4. There is an absence of **skills-based assessments** in the sample assessments. Too much of the assessment strategy is devoted to assignments.

Criterion 11

Learners enrolled on the programme are well informed, guided and cared for

a) There are arrangements to ensure that each enrolled learner is fully informed in a timely manner about the programme including the schedule of activities and assessments.

b) Information is provided about learner supports that are available to learners enrolled on the programme.

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[25] If the award is a QQI CAS compound award it is not necessarily sufficient that the learner has achieved all the components specified in the certification requirements unless at least one of those components is a capstone component (i.e. designed to test the compound learning outcomes).

c)	Specific information is provided to learners enrolled on the programme about any programme-specific appeals and complaints procedures.
d)	If the programme is modular, it includes arrangements for the provision of effective guidance services for learners on the selection of appropriate learning pathways.
e)	The programme takes into account and accommodates to the differences between enrolled learners, for example, in terms of their prior learning, maturity, and capabilities.
f)	There are arrangements to ensure that learners enrolled on the programme are supervised and individualised support and due care is targeted at those who need it.
g)	The programme provides supports for enrolled learners who have special education and training needs.

Satisfactory (yes, no, partially)	Comment
partially	

Principal programme: Higher Diploma in Science in Financial Technology

1. The programme does not take into account, or appear to accommodate, the differences levels of mathematical, computational and technological knowledge skill and competence between enrolled learners, in terms of their prior learning, maturity, and capabilities. The minimum mathematical requirement of H7/O5 in the Leaving Certificate is taken as satisfying technical or mathematical problem solving skills is incompatible with the stated focus of the programme on Level 8 technology and mathematics. It is difficult to see how someone who has a Level 8 award in a discipline that was entirely devoid of any mathematics and technology could successfully participate in this two semester programme.

2. When seeking information on teaching Research Methodology to support the research project, DBS informed the panel that there was a 3 hour module run each week on Research Writing that was compulsory for all students (both non-national and national). This was not mentioned anywhere in the submission and was not included in the programme schedule under the heading of class contact nor was it used in calculations of total student effort. This is a clear omission that needs to be rectified in the schedule and learners need to be made aware of this compulsory element in both the published information on the programme and in the student handbook.

Criterion 12

The programme is well managed
a) The programme includes intrinsic governance, quality assurance, learner assessment, and access, transfer and progression procedures that functionally interface with the provider's general or institutional procedures.
b) The programme interfaces effectively with the provider's QQI approved quality assurance procedures. Any proposed incremental changes to the provider's QA procedures required by the programme or programme-specific QA procedures have been developed having regard to QQI's statutory QA guidelines. If the QA procedures allow the provider to approve the centres within the

provider that may provide the programme, the procedures and criteria for this should be fit-for-the-purpose of identifying which centres are suited to provide the programme and which are not.

c) There are explicit and suitable programme-specific criteria for selecting persons who meet the programme's staffing requirements and can be added to the programme's complement of staff.

d) There are explicit and suitable programme-specific criteria for selecting physical resources that meet the programmes physical resource requirements, and can be added to the programme's complement of supported physical resources.

e) Quality assurance[26] is intrinsic to the programme's maintenance arrangements and addresses all aspects highlighted by the validation criteria.

f) The programme-specific quality assurance arrangements are consistent with QQI's statutory QA guidelines and use continually monitored completion rates and other sources of information that may provide insight into the quality and standards achieved.

g) The programme operation and management arrangements are coherently documented and suitable.

h) There are sound procedures for interface with QQI certification.

Principal programme: Higher Diploma in Science in Financial Technology

This criterion is partially satisfied.

1. Areas of concern to the panel include 1) explicit and suitable programme-specific criteria for selecting persons who meet the programme's staffing requirements (this is not clear, except in a general sense, from the submission)

2. There are explicit and suitable programme-specific criteria for selecting physical resources, particularly new centres, that meet the programme's physical resource requirements - quality assurance policy and procedure, in this regard, must address all aspects highlighted by the validation criteria for each centre.

3. Provisions regarding Regional Centres are not evident in the QAH (although some outline criteria are given in the submission document)

4. DBS has indicated that it may wish to extend the scope of the programme to two new Regional Centres. It has currently not identified locations or facilities that might be available. It does not currently have specific Policy or Procedure in its approved Quality Assurance Handbook to cover the evaluation and approval of additional centres. It identifies some of the issues involved in Section 8.4 of the document, but this has yet to be approved by the Academic Board and formally incorporated into the QAH.

5. Approval of Regional Centres has yet to be undertaken by DBS, so in the absence of information upon which it could make a judgement, the panel could not consider extending validation to centres which do not yet exist. Section 17 of QQIs "*Policies and criteria for the validation of programmes of education and training*" (April 2016) clearly states that where providers wish to offer programmes in multiple centres "Such providers will be expected to have QA procedures for determining which centres have the capacity and capability to provide the programmes." Section 8 of the same document is also relevant here. In extending validation to new centres DBS must first develop robust QA procedures for handling the introduction of new centres, adopt them through internal College QA change approval processes and then obtain QQI approval.

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[26] See also QQI's Policy on Monitoring (QQI, 2014)

Once this has been done then the College will be free under existing QQI policies and criteria to offer its programmes in additional centres.

6. The five year plan for the programme indicates a maximum of 100 students per year (50 full-time, 50 part-time); although there could be up to a further two hundred in Regional Centres, if these were to be established. **However, total possible numbers are unclear from the documentation.** Numbers appear only to be given in relation to full-time versions of the programme (p.14) although the document (p.15) states that this is a 1 year full time and 2 year part time programme. P.37 indicates that these same numbers apply to the part-time mode also, so by inference, the maximum number of part time students in the proposed Regional Centres would be the same as the proposed full-time enrolment. Therefore, if the Regional Centres were established the maximum total number of learners per intake to DBS could be as high as 300. DBS quotes these numbers as the intake per year but the submission is unclear whether this is a combination of the intakes in September AND January or September only. DBS plans a second intake in January, but numbers for this intake are not specifically mentioned in the document. If the information taken on p. 37 paragraph 3.12 is taken at face value then, if 50 students were admitted in January 2018, would there be no students admitted in September 2018, as the maximum intake for the year had been reached? This, again, is unclear from the document.

7. If this were not the case then the possible total number of students, taking into account full-time, part-time and two new Regional Centres could rise to 600. While this is a worst case possibility and may not be the intention of DBS, there is no evidence available in the submission that procedures are in place to prevent this from happening or to control numbers to a level that will ensure DBS has both the capacity and capability of handling. The five year planned intake only appears to deal with one intake in full- time and part-time modes and only in one centre (p.37).

3.1   Embedded programme

3.2   Module

4   Overall recommendation to QQI

4.1   Principal programme

Select one	
	Satisfactory (meaning that it recommends that QQI can be satisfied in the context of unit 2.3) of Core policies and criteria for the validation by QQI of programmes of education and training;
	Satisfactory subject to proposed special conditions (specified with timescale for compliance for each condition; these may include proposed pre-validation conditions i.e. proposed (**minor**) things to be done to a programme that almost fully meets the validation criteria before QQI makes a determination);[27]
✓	**Not satisfactory.**

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[27] Normally an application that fails to meet the criteria in any of its aspects will be considered as not satisfactory. Nevertheless, so as to ensure that the validation process will not be implemented unreasonably, if an independent evaluation finds that a programme virtually meets the validation criteria but needs some minor modifications, the independent evaluation could conclude "Satisfactory subject to recommended special conditions" where the special conditions prescribe the defects that require to be corrected.

4.1.1   Reasons[28] for the overall recommendation

The panel has determined that the programme as submitted **does not**:

1. satisfy a number of sub-criteria as detailed under the Principal programme heading for Criterion 2
2. satisfy Criterion 3
3. satisfy a number of sub-criteria as detailed under the Principal programme heading for Criterion 4
4. satisfy a number of sub-criteria as detailed under the Principal programme heading for Criterion 5
5. satisfy a number of sub-criteria as detailed under the Principal programme heading for Criterion 6
6. satisfy a number of sub-criteria as detailed under the Principal programme heading for Criterion 9
7. satisfy a number of sub-criteria as detailed under the Principal programme heading for Criterion 10
8. satisfy a number of sub-criteria as detailed under the Principal programme heading for Criterion 11
9. satisfy a number of sub-criteria as detailed under the Principal programme heading for Criterion 12

The nature and extent of the deficiencies determined by the panel underpins the recommendation of **Not Satisfactory**

4.2   Embedded programme 1

Select one	
	Satisfactory (meaning that it recommends that QQI can be satisfied in the context of unit 2.3) of Core policies and criteria for the validation by QQI of programmes of education and training;
	Satisfactory subject to proposed special conditions (specified with timescale for compliance for each condition; these may include proposed pre-validation conditions i.e. proposed (**minor**) things to be done to a programme that almost fully meets the validation criteria before QQI makes a determination);[29]

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[28] Give precise reasons for the conclusions organised under each of the 12 criteria (for the programme and each embedded programme and any modules proposed to lead to QQI awards) citing supporting evidence. If any criteria or sub-criteria are not met by the application this must be stated explicitly giving precise reasons with evidence. A "Not Satisfactory" recommendation may be justified if any one of the applicable criteria or sub-criteria are not demonstrated to be satisfied.

[29] Normally an application that fails to meet the criteria in any of its aspects will be considered as not satisfactory. Nevertheless, so as to ensure that the validation process will not be implemented unreasonably, if an independent evaluation finds that a programme virtually meets the validation criteria but needs some minor modifications, the independent evaluation could conclude "Satisfactory subject to recommended special conditions" where the special conditions prescribe the defects that require to be corrected.

4.2.1 Reasons[30] for the overall recommendation

4.3 Embedded programme 2

4.4 Module

Select one	
	Satisfactory (meaning that it recommends that QQI can be satisfied in the context of unit 2.3) of Core policies and criteria for the validation by QQI of programmes of education and training;
	Satisfactory subject to proposed special conditions (specified with timescale for compliance for each condition; these may include proposed pre-validation conditions i.e. proposed (**minor**) things to be done to a programme that almost fully meets the validation criteria before QQI makes a determination);[31]
	Not applicable

4.4.1 Reasons[32] for the overall recommendation

Summary of recommended special conditions of validation

Not applicable

Summary of recommendations to the provider

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[30] Give precise reasons for the conclusions organised under each of the 12 criteria (for the programme and each embedded programme and any modules proposed to lead to QQI awards) citing supporting evidence. If any criteria or sub-criteria are not met by the application this must be stated explicitly giving precise reasons with evidence. A "Not Satisfactory" recommendation may be justified if any one of the applicable criteria or sub-criteria are not demonstrated to be satisfied.

[31] Normally an application that fails to meet the criteria in any of its aspects will be considered as not satisfactory. Nevertheless, so as to ensure that the validation process will not be implemented unreasonably, if an independent evaluation finds that a programme virtually meets the validation criteria but needs some minor modifications, the independent evaluation could conclude "Satisfactory subject to recommended special conditions" where the special conditions prescribe the defects that require to be corrected.

[32] Give precise reasons for the conclusions organised under each of the 12 criteria (for the programme and each embedded programme and any modules proposed to lead to QQI awards) citing supporting evidence. If any criteria or sub-criteria are not met by the application this must be stated explicitly giving precise reasons with evidence. A "Not Satisfactory" recommendation may be justified if any one of the applicable criteria or sub-criteria are not demonstrated to be satisfied.

Declarations of Evaluators' Interests

This report has been agreed by the evaluation panel and is signed on their behalf by the chairperson.

Panel chairperson: Dermot J Douglas   Date: 10/07/2017

Signed:

4.5   Disclaimer

The Report of the External Review Panel contains no assurances, warranties or representations express or implied, regarding the aforesaid issues, or any other issues outside the Terms of Reference.

While QQI has endeavoured to ensure that the information contained in the Report is correct, complete and up-to-date, any reliance placed on such information is strictly at the reader's own risk, and in no event will QQI be liable for any loss or damage (including without limitation, indirect or consequential loss or damage) arising from, or in connection with, the use of the information contained in the Report of the External Evaluation Panel.

Part 3: Proposed programme schedules

Name of Provider:	Dublin Business School																
Programme Title	Higher Diploma in Science in Financial Technology (FinTech)																
Award Title	Higher Diploma in Science in Financial Technology																
Stage Exit Award Title[3]	N/A																
Modes of Delivery (FT/PT):	Full Time																
Teaching and learning modalities	As per module descriptors																

Award Class[4]	Award NFQ level	Award EQF Level	Stage (1, 2, 3, 4, …, or Award Stage):	Stage NFQ Level[2]	Stage EQF Level[2]	Stage Credit (ECTS)	Date Effective	ISCED Subject code
Major	8	7	Award	8	7	60	1st Sept 2017	0412

Module Title (Up to 70 characters including spaces)	Semester no where applicable (Semester 1 or Semester 2)	Module		Credit Number[5]	Total Student Effort Module (hours)					Allocation Of Marks (from the module assessment strategy)				
		Status[9]	NFQ Level[1] where specified	Credit Units / HET Credits	Total Hours	Class (or equiv) Contact Hours	Directed e-learning	Directed Learning	Hours of Independent Learning	Work-based learning effort[10]	C.A. %	Supervised Project %	Proctored practical demonstration %	Proctored written exam %
e-Finance and Financial Services	1 /2	M	8	10 ECTS	250	48	50	152		60			40
Data Management & Cybersecurity	1 /2	M	8	10 ECTS	250	48	50	152		50			50
FinTech Applications	1 /2	M	8	10 ECTS	250	48	50	152		100			
Finance Regulatory Environment	1 /2	M	8	10 ECTS	250	48	50	152		60			40
Big Data and Financial Analysis	1 /2	M	8	10 ECTS	250	48	50	152		60			40
FinTech Applied Project	1 /2	M	8	10 ECTS	250	36		214		20	80		

Special Regulations (Up to 280 characters)
None

Name of Provider:	Dublin Business School
Programme Title	Higher Diploma in Science in Financial Technology (FinTech)
Award Title	Higher Diploma in Science in Financial Technology
Stage Exit Award Title[3]	N/A
Modes of Delivery (FT/PT):	Part Time
Teaching and learning modalities	As per module descriptors

Award Class[4]	Award NFQ level	Award EQF Level	Stage (1, 2, 3, 4, …, or Award Stage):	Stage NFQ Level[2]	Stage EQF Level[2]	Stage Credit (ECTS)	Date Effective	ISCED Subject code
Major	8	7	Award	8	7	60	1st Sept 2017	0412

Module Title (Up to 70 characters including spaces)	Semester no where applicable (Semester 1 or Semester 2)	Module		Credit Number[5]	Total Student Effort Module (hours)					Allocation Of Marks (from the module assessment strategy)				
		Status [11]	NFQ Level[1] where specified	Credit Units — HET Credits	Total Hours	Class (or equiv) Contact Hours	Directed e-learning	Hours of Independent Learning	Work-based learning effort[12]	C.A. %	Supervised Project %	Proctored practical demonstration %	Proctored written exam %
e-Finance and Financial Services	1 /2	M	8	10 ECTS	250	36	62	152		60			40
Data Management & Cybersecurity	1 /2	M	8	10 ECTS	250	36	62	152		50			50
FinTech Applications	1 /2	M	8	10 ECTS	250	36	62	152		100			
Finance Regulatory Environment	1 /2	M	8	10 ECTS	250	36	62	152		60			40
Big Data and Financial Analysis	1 /2	M	8	10 ECTS	250	36	62	152		60			40
FinTech Applied Project	1 /2	M	8	10 ECTS	250	36		214		20	80		
Special Regulations (Up to 280 characters)													
None													

Part 4: Detailed evaluation of the programme's modules and stages that do not directly lead to QQI awards

The commentary in Part 2 will have regard to the modules and address issues concerning them.

However, should any of the modules require extensive this may be included here. Commentary on the modules in Part 4 is only required on an exceptional basis.

Not applicable