

**QQI**Quality and Qualifications Ireland  
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

# Independent Evaluation Report on an Application for Validation of a Microcredential Programme

## Part 1. Provider details

<b>Provider name</b>	National College of Ireland (NCI)
<b>Date of report</b>	March 2021

## Section A. Overall recommendations

<b>Programme</b>	<b>Title</b>	Data Governance and Cyber Security
	<b>Award</b>	Special Purpose Award
	<b>Credit</b>	10
	<b>NFQ Level</b>	Level 8
	<b>Recommendation</b> <i>Satisfactory OR Satisfactory subject to proposed conditions OR Not Satisfactory</i>	Satisfactory

## Section B. Expert Panel

<b>Name</b>	<b>Role</b>	<b>Affiliation</b>
Mr David Denieffe	Chair	Vice-President for Academic Affairs and Registrar, IT Carlow
Mr John Rowley	Subject Matter Expert	Lecturer IBAT College, DBS
Dr Brendan Ryder	Subject Matter Expert	Head of Academic Planning and Quality Assurance, Dundalk IT.

## Section C. Programme Profile Information (as supplied by provider)

<b>Brief synopsis of the programme</b>
<p>The aim of the Data Governance and Cybersecurity micro-credential programme is to provide students with the knowledge, skills, and competence around security and data governance. The programme provides learners with data management and cyber skills to understand the current cyber landscape, identify common threats to data assets, and plan appropriate measures and controls to safeguard data assets. The Data Governance and Cybersecurity micro-credential programme aims to give learners a systematic understanding of key aspects and activities of the data lifecycle management including data classification, data quality, and data risk management. Finally, the programme will also introduce the learner to the regulatory frameworks surrounding financial technology and foundational activities such as security, data protection, and compliance.</p> <p>The Data Governance and Cybersecurity micro-credential aims to develop students with a T-shaped profile; i.e., professionals that comprehend foundational elements of FinTech in conjunction with the security risks, security measures, and information practices needed for the successful implementation of real-world problems. It is also aimed at upskilling/reskilling learners from technical backgrounds on the fundamental skills needed to enter the fintech industry. This programme would also be relevant for technical staff working within companies to enhance their ability to work with and understand their colleagues in IT security teams. It also would enable those in non-technical roles to apply for opportunities within technical departments within their workplace. This micro-credential programme could also be considered as a ‘taster course’ for those that might wish to consider retraining or pursuing a career in fintech, cybersecurity, data management or exploring study opportunities within NCI or elsewhere. Its content spans features that are often listed within job descriptors for data-related roles such as analysts or data engineers, principally:</p> <ul style="list-style-type: none"><li>• Access Management</li><li>• Data protection</li><li>• Governance</li><li>• Threat/Vulnerability Assessment</li></ul>
<b>Target learner groups</b>
<p>In line with the IFS Skillnet Tender specification, the aim is to offer the programme to a broad range of people within the international financial services sector from new/potential entrants to experienced practitioners. The target learner profile remains unchanged from the validated principle programme, aimed at four core audiences:</p> <ul style="list-style-type: none"><li>• Learners graduating from a STEM degree that would like to consolidate their existing academic knowledge and progress into the emerging FinTech market.</li><li>• Learners that have graduated from a social science with strong numerical skills and are looking to migrate into a new discipline to increase their employment potential.</li><li>• Learners that have graduated from a Finance or Computing background and seek to professionally mediate the two domains.</li><li>• Learners who are currently working in the Financial sector and do not have the relevant academic or IT experience but have an appropriate RPEL application and are looking for a progression path in their current working environment or are looking to move to a new job.</li></ul>
<b>Rationale for Programme</b>
<p>This module is being offered as a micro-credential programme to directly address a need by IBEC, needs of industry, in addition to current national recovery plans identified by Ministers and industry in response to the COVID Pandemic, with emphasis placed upon reskilling/upskilling the workforce as jobs</p>

become increasingly digitalised. It also aims to fulfilling Government objectives such as ensuring that education is relevant to the needs of the economy as evidenced in strategic government reports such as the Expert Group Future Skills Needs (EGFSN) and also through on-going engagement between the School of Computing and employers. The micro-credential programme is motivated around bridging the knowledge gap surrounding cybersecurity and data governance.

IBEC is Ireland's largest lobby and business representative group. Our purpose is to help build a better, sustainable future by influencing, supporting and delivering for business success. IBEC is a promoter of IFS Skillnet. IFS Skillnet is a national network of companies operating in the international financial services industry in Ireland providing services to over 15,000 companies.

NCI through a tendering process has won the contract to provide IFS Skillnet with a module on Data Governance and Cybersecurity from 2020 to 2022. NCI has designed the micro-credential in response to feedback and the requirements of IBEC members.

This flexible programme of study will provide a quality assured and accredited route to upskilling and reskilling learners around industry and business-sought skillsets that can be immediately applied, enhancing organisations and learner's responsiveness and resilience to the current crisis. The programme equips learners to understand the current cybersecurity landscape and respond with appropriate safeguarding measures to protect data's confidentiality, integrity, and availability. Furthermore, the micro-credential also provides learners a systematic understanding of data governance's activities and roles and responsibilities which are crucial to support efficient decision making regarding the management of the data throughout its lifecycle. The skills and knowledge acquired by the learner in this programme are highly demanded in any industry, in particular, within the increasingly digitised workplace and the sophisticated cyberattacks that put organizations at constant risk.

The graduates of this programme will be qualified in highly-demanded and fast-growing areas which are required in Ireland's digital economy, allowing progression in their existing workplace or alternative employment opportunities. According to the Vacancy Overview 2018 (EGFSN), the majority of job announcements in 2018 were for roles in IT, industry, retail, and financial activities; where financial, ICT and professional activities sectors were the most likely to require a minimum of a NFQ level 7 qualification. Therefore, interested learners can turn to this micro-credential to foster career development. The report also shows that the Financial sector experienced strong employment growth in 2018 where the annualised vacancy rates in this sector were even higher in Ireland than in the EU-28 countries. The report showed that vacancies are occurring particularly in the areas of risk, compliance, and regulatory affairs; areas that are part of curriculum of this micro-credential, thus, addressing the needs of the Irish economy. Similarly, the Government's international financial services strategy (2019) recognizes that the future demand for business and financial skills is likely to be affected by the nature of the tasks required to fulfil these roles due to technological change, indicating that the demand for IT skills extends beyond the ICT sector and is increasingly a requirement across other traditional job titles.

The parent/principal validated programme for this micro-credential is also designed in a similar manner, meaning that it is designed for flexible/online study for learners that can easily transfer into a workplace/applied environment after completion. Alternatively, they may choose to continue with further study to enhance the level, breadth and depth of their knowledge by opting to progress at NCI to a Masters Programme. However, the availability of this micro-credential in addition to the principal programmes, provides maximum flexibility and timeliness for learners and industry. The module aims and objectives from the parent validated programme still stand are relevant while the content of the programme was amended with recent cybersecurity trends, ethical considerations, and legal aspects to recognise the transformational impact of the industry. The assessment learning outcomes were also updated

to assess learner's knowledge across all topics. Finally the reading list material was updated to align reading with the programme objectives.

The number and range of opportunities for skilled graduates which exist in the Computing/IT sector in Ireland has been well documented in reports such as "Forecasting the Future Demand for High Level ICT Skills in Ireland, 2017-2022" (Expert Group on Future Skills Needs, March 2019) as well as its preceding report on "Addressing Future Demand for High Level ICT Skills" (Expert Group on Future Skills Needs, 2013). Commissioned by the Government, both reports highlight the need for graduates with expertise in computing and engineering. Specifically, the 2019 report emphasises the need of market-demand driven programmes in technologies such as Cybersecurity, Blockchain, and Data Analytics as the demand for high level ICT skillsets is forecast to grow at 8.5% annually, generating potential job openings of almost 73,000 during the period 2018-2022. Such demand will be driven by the continuing growth of the technology sector, the impact of emerging technologies on all sectors of the economy and the spread of digitalisation. Hence, according to the Technology Skills 2022 Ireland's Third ICT Skills Action Plan (Department of Education and Skills), boosting the numbers of high-level ICT graduates from Ireland's education and training system is no longer just a sectoral issue, but a national economic priority. The report also underlines the need to launch "new, shorter courses [...] to respond to new skills demand and to help increase graduate output" (p.11,87); although ICT NFQ Level 8+ demand continues to grow the strongest and mostly demanding by employers. This programme represents the School's strategy to meet growing demand by producing top quality high-level ICT graduates in the areas of cybersecurity, data governance, and financial technologies, which are relevant to the needs of industry and crucial to the growth of the Irish economy.

#### Evidence of learner demand

The COVID pandemic and recovery plans proposed by the Irish Government alongside the increased availability of funding for ICT skills development by the HEA and ICTSkillnet, demonstrate a demand and recognition from funders of an imminent need to increase skills in ICT across the country. Furthermore, the July 2020 Stimulus package announcements reiterated the demand for the availability of short, flexible, online accredited learning opportunities particularly in the areas of IT.

The National Skills Bulletin 2019, which provides a detailed analysis of vacancies occurring in Ireland, indicated that, although the number of ICT graduates has grown considerably in recent years, the skillsets for these occupations are constantly evolving and the international competition for these skills continues to result in shortages. According to a recruitment agency survey conducted by the Skills and Labour Market Research Unit (SLMRU) in SOLAS in April 2019, there is evidence of difficulties in filling vacancies for professional jobs in areas such as IT, business and finance, data analytics. The CSO's Earnings, Hours and Employment Costs Survey (EHECS) conducted in quarter 4 2018 reported that the professional activities sector recorded the highest job vacancy rate<sup>1</sup> at 2.7%, followed by financial activities at 2.2%, and ICT at 1.7%.

<sup>1</sup> The job vacancy rate, as detailed in the CSO Earnings, Hours and Employment Costs Survey (EHECS), measures the proportion of total posts that are vacant as a proportion of total occupied posts combined with job vacancies.

#### Duration and Enrolment

	First Intake Date	Duration (months)	Cohorts / Intakes per Annum	Enrolment i.e. learners per Intake	
			Maximum	Minimum	Maximum
<b>Full-Time</b>	May 2021	12 Weeks	3	15	100
<b>Part-Time</b>	May 2021	12 Weeks	3	15	300

### **Panel Commentary on Section C: Programme Profile Information**

*This should set out the panel's views on the adequacy of the case made by the provider for the approval of this programme as a viable, stand alone offering for the target learner group. The panel should take into account the proposed rationale, evidence of market demand, learner numbers, entry criteria, and marketing information. The information on objectives, MIPLO's and marketing information, rationale, should also be checked.*

*The following Validation Criteria as they apply to this programme should be borne in mind, while also recognising that the programme of which this microcredential is a module, has already been deemed to have met these criteria.*

**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)*

**Criterion 2:** *The programme objectives and outcomes are clear and consistent with the QQI awards sought*

**Criterion 11:** *Learners enrolled on the programme are well informed, guided and cared for.*

**Criterion 12:** *The programme is well managed*

***The headings below are indicative only and can be removed***

#### **Rationale, Learner Demand, Viability:**

The Panel were satisfied with the rationale presented for the development of this programme. They commend NCI on the engagement with industry for the provision of this microcredential (special purpose award).

#### **Proposed Award - consistency with NFQ:**

The panel are satisfied that the proposed is consistent with the NFQ level being proposed.

#### **Learner Interests: - (Information, QA, Supports, Benefits / Skills accruing from programme):**

The Panel is satisfied that learner interests are incorporated in the programme. The Panel considered in detail the information being supplied to learners; the access, transfer and progression arrangements in place and the support for learners .

## Section D. Programme Content, Delivery and Assessment

Summary of specifications for teaching staff		
Role	Profile	WTE
Programme Director & Lecturer	Dr Luis Gustavo Nardin, PhD, MBA, MSc, BSc, 2+ years teaching in HE	0.1
Lecturer	Dr Vanessa Ayala Rivera, PhD, BSc, 10+ years' experience in IT industry, 2+ years teaching in HE	1
Programme Coordinator	Ms. Isabel O'Connor	0.1

Mode(s) of Delivery
<p>Classroom</p> <p>Synchronous Online</p> <p>Directed Asynchronous e-learning</p> <p>On-Demand Asynchronous</p> <p>Documentation was supplied to the Panel to outline how the delivery mode is consistent with face to face, blended, and 100% online.</p>

Assessment Strategy
<p>The micro-credential will be delivered both synchronous (live) digital activities as well as structured tutorials and directed activities on the College's learning management system.</p> <p>The programme will be taught using a mix of a traditional instructivist and constructivist approaches. Teaching and learning will take place primarily through theoretical material, practical workbooks, on-going formative assessment and case studies. The teaching and learning strategy will be applied in nature and lectures will focus on the understanding and application of knowledge in a practical and applied manner utilising a problem-based learning approach. Participants will be guided towards suitable online supporting material including videos and interactive textbook exercises (including MCQs, critical thinking questions, discussion questions, classroom polls, etc.) to support a constructivist approach.</p> <p>The programme will include formative assessments, which will consist of the analysis of case studies and group activities answering to open-ended questions. In-class discussions and oral feedback will be provided throughout these activities. The learners will have access to all teaching materials through Moodle. The teaching and learning materials will include lecture notes, bespoke video tutorials, links to online resources, and structured assignments with opportunities for feedback.</p>

### **Panel Commentary on Section D: Programme Content, Delivery and Assessment**

*This should set out the panel's views on the programme content, mode(s) of delivery and assessment, human and ICT resources. If the parent programme is more than a year old, the currency of module content and supporting technology should be checked.*

*The following Validation Criteria as they apply to this programme should be borne in mind, while also recognising that the programme of which this microcredential is a module, has already been deemed to have met these criteria.*

**Criterion 5:** *The programme's written curriculum is well structured and fit-for-purpose.*

**Criterion 6:** *There are sufficient qualified and capable programme staff available to implement the programme as planned*

**Criterion 7:** *There are sufficient physical resources to implement the programme as planned*

**Criterion 8:** *The learning environment is consistent with the needs of the programme's learners*

**Criterion 10:** *There are sound assessment strategies*

*The headings below are indicative only and can be removed*

#### **Currency of content:**

The Panel are satisfied the indicative content outlined in the descriptor is current, well-structured and fit-for purpose.

#### **Delivery mode(s):**

Documentation was supplied to the Panel to outline how the delivery mode is consistent with face to face, blended, and 100% online. The Panel are satisfied with this.

#### **Assessment strategy:**

Based on the feedback of the panel, the assessment strategy was reviewed and changed to include 2 pieces of work of Continuous Assessments (eliminating the terminal examination). The assessment strategy has been modified accordingly with the assessment types and their associate descriptions being more specific about the nature of assessment components; where possible, case scenarios will cover interdisciplinary work in data governance and cybersecurity challenges.

The Panel also saw samples of assessment material.

#### **Human and ICT resources:**

The Panel are satisfied NCI have the appropriate resources in place to deliver this programme.

## Part 2. Overall recommendation to QQI

### 2.1 Programme:

Select one	
X	<b>Satisfactory</b> (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;
	<b>Satisfactory subject to proposed special conditions</b> (specified with timescale for compliance for each condition; these may include proposed pre-validation conditions i.e. proposed ( <b>minor</b> ) things to be done to a programme that almost fully meets the validation criteria before QQI makes a determination);
	<b>Not satisfactory.</b>

#### Reasons for the overall recommendation:

The Panel are satisfied that the programme (micro-credential) presented sufficiently addressed the core policies and criteria for the validation by QQI of programmes of education and training.

The Panel commend NCI on this development and the engagement with industry in so doing.

#### Any other observations:

None

#### Special Conditions of Validation (directive and with timescale for compliance)

None

#### Declarations of Evaluators' Interests

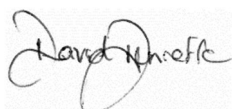
NIL

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

Panel chairperson: David Denieffe

Date: 6/3/2021

Signed:





## 2.2 Disclaimer

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