

# Report of External Evaluation and Review

Techtorium New Zealand Institute of  
Information Technology

Highly Confident in educational performance

Highly Confident in capability in self-assessment

Date of report: 11 February 2016

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*Final report*

# Purpose of this Report

*The purpose of this external evaluation and review report is to provide a public statement about the Tertiary Education Organisation's (TEO) educational performance and capability in self-assessment. It forms part of the accountability process required by Government to inform investors, the public, students, prospective students, communities, employers, and other interested parties. It is also intended to be used by the TEO itself for quality improvement purposes.*

## Introduction

### 1. TEO in context

Name of TEO:	Techtorium New Zealand Institute of Information Technology (Techtorium)
Type:	Private training establishment (PTE)
First registered:	24 December 2002
Location:	182 Broadway, Newmarket, Auckland
Delivery sites:	Techtorium also delivers Introduction to Computer Engineering courses at selected secondary schools nationally.
Courses currently delivered:	<ul style="list-style-type: none"><li>• Diploma in Cloud Management (Level 7)</li><li>• Diploma in Computer Networking and Security (Level 6)</li><li>• Diploma in PC Support (Level 5)</li><li>• Introduction to Computer Engineering</li></ul>
Code of Practice signatory:	Yes
Number of students:	163 Student Achievement Component-funded domestic learners for 2015  Eight international students enrolled in 2015 (including four currently studying at the institute)
Number of staff:	13 full-time and one part-time staff
Scope of active accreditation:	Qualification programmes and a couple of domain consents to assess in relation to computing: <a href="http://www.nzqa.govt.nz/providers/nqf-accreditations.do?providerId=763895001">http://www.nzqa.govt.nz/providers/nqf-accreditations.do?providerId=763895001</a>

Distinctive characteristics:	Techtorium specialises in vocational training for computer technicians. It provides a pathway for secondary school students and others to be trained and equipped with the skills and knowledge required to gain employment at entry level and commence a career in the information technology industry.
Recent significant changes:	<p>Evolving from only offering one programme (Diploma in PC Support (Level 5)) in 2011, Techtorium submitted new computer engineering programmes at the higher levels 6 and 7 to NZQA for programme accreditations. Approvals were granted in 2013 and 2015 respectively.</p> <p>Techtorium received significant increases in Student Achievement Component funding from the Tertiary Education Commission (TEC) from 2015 – with an increase of 76 per cent in funding compared with the funding level in 2014.</p>
Previous quality assurance history:	<p>The previous external evaluation and review of Techtorium was conducted in 2011. NZQA was Highly Confident in the educational performance and Confident in the capability in self-assessment of Techtorium.</p> <p>NZQA conducted a validation visit in 2013 and found Techtorium’s operations fully compliant.</p> <p>Techtorium received very good results for the 2014 NZQA national external moderation of unit standards in computing. All assessment materials and assessor decisions sampled met national external moderation requirements. Based on the highly positive results, Techtorium was exempted from national external moderation for 2015.</p>

## 2. Scope of external evaluation and review

Governance, management and strategy is a mandatory focus area. As the majority of enrolments are on the Diploma in PC Support (Level 5) programme, Techtorium nominated that programme to be a focus area. The evaluation team agreed.

### 3. Conduct of external evaluation and review

*All external evaluation and reviews are conducted in accordance with NZQA's published policies and procedures. The methodology used is described fully in the web document Policy and Guidelines for the Conduct of External Evaluation and Review available at: <http://www.nzqa.govt.nz/providers-partners/registration-and-accreditation/external-evaluation-and-review/policy-and-guidelines-eer/introduction>. The TEO has an opportunity to comment on the accuracy of this report, and any submissions received are fully considered by NZQA before finalising the report.*

Self-assessment materials were delivered to NZQA in a timely fashion to inform the scoping of this external evaluation and review. Prior to the scope being finalised, the lead evaluator met with one of the directors of Techorium to agree on the focus areas and logistics of the on-site visit.

The evaluation team comprised two evaluators. The on-site visit at Techorium's Newmarket campus was conducted over three days. The evaluation team interviewed the two directors (one also holds the title of principal), the programme director, the programme leader and three trainers for the Diploma in PC Support programme, the secondary pathways manager, the marketing and employment pathways manager, the marketing co-ordinator, the operations co-ordinator, and six learners (including two international students). The evaluation team also observed the 'modern learning environment' in action and had informal chats with a number of learners during observation. A range of documents and records were reviewed.

# Summary of Results

## Statements of confidence on educational performance and on capability in self-assessment

NZQA is **Highly Confident** in the educational performance, and **Highly Confident** in the capability in self-assessment of **Techtorium New Zealand Institute of Information Technology**.

- Withdrawal rates have been very low due to Techtorium's focus on attendance, a major contributor to its very high course and qualification completion rates (close to 100 per cent) across learners of all ethnic groups (see Findings 1.1).
- The exceptional achievement rates are validated by robust assessment and moderation practices. NZQA exempted Techtorium from participation in the 2015 national external moderation based on the 2014 national external moderation outcomes – an indication that its internal moderation practices are effective (see Findings 1.4).
- Techtorium delivers to the Tertiary Education Strategy. It is equipping priority learners (Māori and Pasifika) with diploma qualifications. Vocationally focused training that is appropriately balanced between technical knowledge and soft skills development prepares learners for a career in computing support. Over 71 per cent of graduates secure relevant employment (see Findings 1.2 and 1.3).
- Most importantly, Techtorium demonstrates very strong understanding of the essence of self-assessment within the Evaluative Quality Assurance Framework for the tertiary education sector. The institute was not complacent in its excellent educational performance, which has consistently been close to 100 per cent for many years. It seeks to proactively understand the changing requirements of industry employers, thoroughly researches options to deliver better learning outcomes in line with employers' expectations, and carefully implements the solution – transition to a 'modern learning environment'<sup>1</sup> (see Findings 1.3 and 1.6).
- Techtorium is led by two educationalists who infuse a learner-centric culture across the organisation. Significant investment has been made to support training delivery. Staff are valued, engaged and well supported with professional and career development (see Findings 1.6).
- There are opportunities for Techtorium to further strengthen its organisational knowledge around the Code of Practice for the Pastoral Care of International Students, but such deficiency is very small in scale as the international market is not the institute's current focus (see Findings 1.5 and Recommendations).

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<sup>1</sup> <http://mle.education.govt.nz/>

# Findings<sup>2</sup>

## 1.1 How well do learners achieve?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Learners acquire up-to-date computer support and network security knowledge, as well as a mature attitude and skills that the industry considers desirable for employment (for example, problem-solving, presentation, communication and teamwork). This cements a solid foundation for a career in the computing support industry. Seventy-one per cent of Techtorium's Diploma in PC Support graduates found relevant employment on completion. A further 13 per cent progress to higher-level studies.

Learner achievement in terms of course and qualification completions at Techtorium are outstanding. Course completion rates across all programmes by all learners regardless of ethnicity have consistently been close to 100 per cent and well exceed the performance targets set by the TEC. Learners from priority groups achieve qualifications at a comparable rate to others. Table 1 shows educational performance indicators (EPIs) for the focus programme of this evaluation.

**Table 1. Techtorium EPI data for Diploma in PC Support (Level 5) programme<sup>3</sup>**

	<b>2012</b> (n=56)	<b>2013</b> (n=75)	<b>2014</b> (n=94)	<b>2015 forecast<sup>4</sup></b> (n=167)
<b>Course completion</b>	100%	100%	100%	98%
Māori	100%	100%	100%	97%
Pasifika	100%	100%	100%	100%
Other groups	100%	100%	100%	97%
<b>Qualification completion</b>	96%	93%	94%	99%
Māori	100% (n=1)	100% (n=10)	92% (n=13)	97% (n=31)
Pasifika	93% (n=15)	93% (n=15)	91% (n=22)	100% (n=32)
Other groups	98%	92%	95%	99%

Data source: Techtorium New Zealand Institute of Information and Technology

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<sup>2</sup> The findings in this report are derived using a standard process and are based on a targeted sample of the organisation's activities.

<sup>3</sup> This differs from the EPI data published by TEC online as it is calculated based only on the Diploma in PC Support programme – as opposed to all Techtorium programmes.

<sup>4</sup> Based on non-completion and non-achievement of qualification to date.

Internally, Techtorium benchmarks itself against 26 providers who offer similar qualifications at level 5, using publicly available information from the TEC and noting that its course completion rate for its Diploma in PC Support programme has outperformed all but two providers since 2011.

Techtorium closely monitors its learner achievement. Drop-out rates are very low due to Techtorium's very strong focus on attendance. Trainers also track learners' attitudes and personal growth on aspects such as communication skills, punctuality and maturity. Trainers have catch-up sessions with learners individually each week. Comprehensive and effective monitoring contribute to the high achievement rates.

## 1.2 What is the value of the outcomes for key stakeholders, including learners?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

The value of learner outcomes in terms of employment readiness is clear. The one-year Diploma in PC Support programme is well structured and appropriately balanced between technical knowledge and soft skills to prepare learners for a career in the computing support industry, with a common starting salary of around \$35,000-\$40,000. Techtorium's training programmes and qualifications are valued in the industry, with five employers consistently approaching Techtorium to hire new graduates.<sup>5</sup>

Techtorium applies a holistic approach to developing its young learners who may or may not have otherwise succeeded in the traditional academic pathway, and providing them with the direction, guidance and support in becoming valuable contributors to the economy. Eighty-four per cent of graduates since 2012 are either in relevant employment or have proceeded to further studies, with an additional 13 per cent of graduates employed outside the information technology industry.

The secondary school sector values the Introduction to Computer Engineering short courses run by Techtorium. The short courses are usually three to four days long and provide a 'taster' to secondary school students of topics such as hardware, network, software and forensic computing, an opportunity for them to ascertain whether this is a career choice they wish to pursue. The short courses also allow both prospective learners and Techtorium to establish mutual suitability – another contributing factor to its low withdrawal and high achievement rates.

Techtorium effectively tracks its graduate destinations through the use of social media and informal contacts within a well-connected industry. Secondary school

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<sup>5</sup> The five major employers have employed a total of 52 graduates since 2012.

partners and employers are surveyed periodically. Data collected from these surveys is analysed and used to monitor ongoing performance and programme relevance.

### 1.3 How well do programmes and activities match the needs of learners and other stakeholders?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Techtorium programmes are carefully structured and very well designed, clearly supporting the institute's objective of being a vocationally focused organisation. Through formal (representation on the advisory board) and informal channels (trainers' connections in the industry), employers' views are sought to develop the desired graduate profile before programmes are developed accordingly, as well as throughout delivery to ensure the relevance of programmes. For example, feedback from employers led to changes in programme content and strengthening the development of soft skills – an increasing requirement for successful employment in the industry. In fact, Techtorium commissioned research titled Project Careertech, which identified a range of mechanisms to develop learners' soft skills that are desired by the sector. The evaluation team considers this to be high-quality research (postgraduate level) which since its implementation has contributed to producing graduates that are well received and sought after by employers.

In addition to Project Careertech, Techtorium also revamped its delivery methods. The institute conducted extensive research on the benefits of a modern learning environment<sup>6</sup> – and how it complements the development of the desired soft skills – through reading scholarly writing and observing practice at a secondary school. Techtorium then piloted the initiative in 2014 and, upon evaluation, made a conscious and informed decision to move to a modern learning environment in 2015. The institute is closely monitoring the changes the new environment has on learners, and has plans to fully review and evaluate the initiative upon completion of a full year of delivery. The evaluation team found Techtorium's approach to continuous improvement highly responsible and an exceptional example of outstanding self-assessment practice.

Techtorium was well aware back in 2012 of its relatively low Māori participation rate (see Table 1 which shows Techtorium only had one Māori learner out of its 56 enrolments in 2012). In line with the government's Tertiary Education Strategy, the institute proactively reached out to prospective Māori learners through targeted marketing and closer relationships with secondary schools. This has been highly

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<sup>6</sup> <http://mle.education.govt.nz/>

effective, increasing the Māori participation rate to 18.5 per cent this year.<sup>7</sup> A similar participation rate is recorded for Pasifika learners, another priority group.<sup>8</sup>

#### 1.4 How effective is the teaching?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Teaching is highly effective at Techtorium. Trainers are qualified, enthusiastic, experienced and well connected in the industry. Trainers were fully involved in the transition to the modern learning environment to ensure support and buy-in to the new delivery mode. Additional new trainers who recently came on board due to recent expansion of the roll (as a result of increased TEC funding – see page 4 of this report) were carefully selected, again to ensure effective delivery in a modern learning environment. New trainers were thoroughly inducted into the institute and are well supported in their delivery by their peer colleagues and management. Peer observation is practised continuously in a modern learning environment, where multiple trainers operate in one open learning space.

Training is highly practical and appropriate to the nature of the subject. Learners are able to apply knowledge immediately in their daily lives and relevant part-time work, as well as having the opportunity to volunteer for the infrastructure setup for the on-site delivery of the Introduction to Computer Engineering short courses. The learning environment and training methodology reflect an informed decision by Techtorium to deliberately structure the course to develop the various soft skills desired by industry employers. Learning activities are designed to effectively engage all learners – the evaluation team observed positive interactions between learners and trainers in the modern learning environment, as well as a high level of collaboration between learners. The modern learning environment and training delivery are well structured.

Assessment is validated through effective moderation practice. There is evidence of robust internal moderation processes. NZQA exempted Techtorium from external national moderation for 2015 based on its excellent external national moderation results in 2014 – an indication that its internal moderation practices are effective.

Learners' perceptions of teaching effectiveness are sought through quarterly online surveys. Concerns raised by learners in the surveys in relation to their training are responded to efficiently.

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<sup>7</sup> Thirty-one Māori learners out of 167 enrolments in 2015.

<sup>8</sup> Thirty-two Pasifika learners out of 167 enrolments in 2015.

## 1.5 How well are learners guided and supported?

The rating for performance in relation to this key evaluation question is **Good**.

The rating for capability in self-assessment for this key evaluation question is **Good**.

Techtorium's guidance and support to learners is strong in relation to training and pathways to employment. There is plenty of individual attention afforded by trainers in the modern learning environment. Additional support classes are conducted every Friday on topics nominated by learners. The institute recognises the importance of attendance as a contributing factor to successful learner achievement. Attendance is monitored very closely. Any absences are promptly followed up by staff on the same day. The evaluation team heard of instances where trainers went out of their way to visit learners at home, in an attempt to re-engage them. The low withdrawal and high achievement rates are testament to the effectiveness of Techtorium's practice in its focus on attendance and provision of academic support. The institute also provides assistance to learners in preparation for employment. Workshops are run on curriculum vitae and interviewing techniques. The institute actively identifies vacancies in the industry, holds profiles of major employers it works with, and puts forward learners that it considers best match the organisation's requirements and culture. This approach is a key contributor to the employment outcomes mentioned in Findings 1.1 and 1.2.

Techtorium shows that it cares about the wellbeing of its learners, most of whom are in their late teens or early twenties. All staff are first-aid trained and one support staff is also a qualified nurse. Staff show an interest in learner issues outside of study and often provide pastoral support beyond their call of duty.

Techtorium enrolls international students, although that has not been a main focus of the institute in the past. Only a handful of international students enrol each year. The low numbers may have led to a lower priority in upskilling staff on the requirements of the Code of Practice for the Pastoral Care of International Students, which is an area where the institute in general demonstrates some weaknesses in knowledge.

Techtorium conducts quarterly learner online surveys. While the institute has been efficient in responding to concerns raised by learners, there are opportunities to improve its communication to learners in terms of the resolution of issues. The same applies to explaining the importance of Project Careertech, where some learners demonstrate a minimal level of buy-in to this critical learning outcome. The institute could invite employers and past graduates to speak to the learners about the benefits of the project to increase the level of engagement.

## 1.6 How effective are governance and management in supporting educational achievement?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Techtorium's vision and purpose are clear. The institute delivers to the Tertiary Education Strategy – it is equipping priority learners (Māori, Pasifika and under-25s) with diploma qualifications; and has a strong focus on vocational outcomes and is highly effective in understanding and translating industry requirements into its programme content, structure and delivery. Techtorium is also well prepared for the outcome of the Targeted Review of Qualifications.

Techtorium operates very sophisticated information systems to manage its learner achievement information as well as its internal operations. Notably, a 'task and job database' is maintained by the institute, recording all operational requirements (processes and procedures) to ensure all tasks are appropriately assigned. To prepare for future growth as a result of government's emphasis on STEM subjects (science, technology, engineering and mathematics), the institute has initiated a five-year staffing review project, whereby it identifies future operational needs and invites all current staff to participate in career development discussions that support the organisation's growth. Professional development is provided to nurture staff into their desired career path that is in line with the institute's plans for the future. The task and job database is enriched and new roles are split off/created as positions outgrow themselves. Staff are engaged and excited as a result of their involvement in such strategic staffing decisions, and the organisation demonstrates the high value it places on its human capital. The evaluation team is impressed by the approach the institute has taken on this matter.

Techtorium is led by two forward-looking educationalists, who have led by example and infused a learner-centric culture throughout the institute. Significant investment is made in hardware, resources and the learning environment, providing learners with a positive learning space that supports effective training delivery. Techtorium has always produced excellent outcomes in terms of course and qualification achievement in the past, but it has not been complacent in its success. As discussed in Findings 1.3, the institute made an informed decision and adopted a careful approach to transition to a modern learning environment, not to boost its achievement rates (as they were already near 100 per cent) but to produce better learning outcomes for learners by enhancing the development of soft skills desired by industry. This is an exceptional demonstration of how self-assessment should operate under the Evaluative Quality Assurance Framework. The evaluation team is impressed with Techtorium's capability in self-assessment and is fully convinced of its ability to self-identify continuous improvement opportunities.

## Focus Areas

*This section reports significant findings in each focus area, not already covered in Part 1.*

### 2.1 Focus area: Governance, management and strategy

The rating in this focus area for educational performance is **Excellent**.

The rating for capability in self-assessment for this focus area is **Excellent**.

### 2.2 Focus area: Diploma in PC Support (Level 5)

The rating in this focus area for educational performance is **Excellent**.

The rating for capability in self-assessment for this focus area is **Excellent**.

# Recommendations

NZQA recommends that Techtorium New Zealand Institute of Information Technology:

- Ensure an effective channel for communicating to learners the proposed resolutions and outcomes of any concerns raised.
- Identify ways to increase the level of learners' buy-in of, and enthusiasm for, Project Careertech.
- Strengthen organisational knowledge of the Code of Practice for the Pastoral Care of International Students.

# Appendix

## Regulatory basis for external evaluation and review

*External evaluation and review is conducted according to the External Evaluation and Review (EER) Rules 2013, which are made by NZQA under section 253 of the Education Act 1989 and approved by the NZQA Board and the Minister for Tertiary Education, Skills and Employment.*

*Self-assessment and participation in external evaluation and review are requirements for maintaining accreditation to provide an approved programme for all TEOs other than universities. The requirements are set through the NZQF Programme Approval and Accreditation Rules 2013, which are also made by NZQA under section 253 of the Education Act 1989 and approved by the NZQA Board and the Minister for Tertiary Education, Skills and Employment.*

*In addition, the Private Training Establishment Registration Rules 2013 require registered private training establishments to undertake self-assessment and participate in external evaluation and review, in accordance with the External Evaluation and Review Rules (EER) 2013, as a condition of maintaining registration. The Private Training Establishment Registration Rules 2013 are also made by NZQA under section 253 of the Education Act 1989 and approved by the NZQA Board and the Minister for Tertiary Education, Skills and Employment.*

*NZQA is responsible for ensuring non-university TEOs continue to comply with the rules after the initial granting of approval and accreditation of programmes and/or registration. The New Zealand Vice-Chancellors' Committee (NZVCC) has statutory responsibility for compliance by universities.*

*This report reflects the findings and conclusions of the external evaluation and review process, conducted according to the External Evaluation and Review (EER) Rules 2013.*

*The report identifies strengths and areas for improvement in terms of the organisation's educational performance and capability in self-assessment.*

*External evaluation and review reports are one contributing piece of information in determining future funding decisions where the organisation is a funded TEO subject to an investment plan agreed with the Tertiary Education Commission.*

*External evaluation and review reports are public information and are available from the NZQA website ([www.nzqa.govt.nz](http://www.nzqa.govt.nz)).*

*The External Evaluation and Review (EER) Rules 2013 are available at <http://www.nzqa.govt.nz/assets/About-us/Our-role/Rules/EER-Rules.pdf>, while information about the conduct and methodology for external evaluation and review can be found at <http://www.nzqa.govt.nz/providers-partners/external-evaluation-and-review/policy-and-guidelines-eer/introduction/>.*

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