

Report of External Evaluation and Review

Infrastructure Industry Training Organisation (Connexis)

Highly Confident in ITO performance

Highly Confident in capability in self-assessment

Date of report: 12 August 2016

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Purpose of this Report

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

Introduction

1. ITO in context

Name of ITO:	Infrastructure Industry Training Organisation (Connexis)
Location:	Level 13, Simpl House, 40 Mercer Street, Wellington
Gazette recognition date:	30 September 2018
Gazette coverage:	'Pursuant to section 5 of the Industry Training Act 1992, full recognition for the Infrastructure Industry Training Organisation Incorporated as an industry training organisation has been granted for a period of five years, with effect from 1 October 2013 until 30 September 2018, to set standards at level 1 to 8 on the New Zealand Qualifications Framework for the infrastructure sector that includes road construction and maintenance, civil engineering works, demolition, agricultural contracting and spraying, road marking and bitumen industries, and surveying, planning and associated activities in an infrastructure construction process.'
Number of qualifications registered on NZQF:	Connexis now has 68 New Zealand qualifications registered on the New Zealand Qualifications Framework (NZQF) and 19 programme accreditations and approved training schemes: http://www.nzqa.govt.nz/for-business/details.do?providerId=813624001
Number of standards registered on NZQF:	Connexis has over 200 individual standards registered on the NZQF.
Number of trainees:	5,062 overall with 4,409 industry trainees, 67 Modern Apprentices and 586 New Zealand

	Apprentices as at February 2016, with 8 per cent identifying as Pasifika, 15 per cent Māori, and 4 per cent as female.
Number of staff:	67.75 full-time equivalents; one part-time staff member
Number of registered workplace assessors:	637 registered assessors overall comprising 417 active workplace assessors and 219 active external assessors in 2016, with 95 endorsed as Recognition of Current Competency assessors. This figure is up from 616 in 2015.
Distinctive characteristics:	<p>Connexis is the industry training organisation for the electricity supply and telecommunications and civil infrastructure industries.</p> <p>As implied by the word 'infrastructure', the industries represented are essential to the country's development and strategic direction. The Connexis governance structure is made up of three industry groups – the electrical supply, civil and water industry groups.</p>
Recent significant changes:	<p>In October 2013, the Electricity Supply Industry Training Organisation (ESITO) merged with InfraTrain New Zealand Limited (InfraTrain) to become the Infrastructure Industry Training Organisation (Connexis).</p> <p>In early 2014, Connexis deployed a Cloud-based performance management system to enable Connexis staff to input and receive accurate data. This system is beginning to be embedded into the organisation's practices.</p> <p>In 2015, Connexis applied to extend industry coverage to include the water reticulation, water treatment and wastewater treatment industries. In mid-2015, the gazetted coverage for Connexis was extended to include the three water sectors. The core educational qualifications for this sector are based on the treatment and distribution of drinking water, and the collection and treatment of waste/stormwater. Assets for the water sector total \$35 billion (total asset replacement value).</p> <p>2015 saw the launch of the Trade Certification Level 4 Civil Trades programme. Connexis worked closely in partnership with Civil Contractors</p>

New Zealand to instigate Civil Trades Certification recognition within the civil industries. Connexis worked with industry to develop qualifications and a Recognition of Current Competency process to promote a career pathway to certification. The importance of this to the industry was recognised at the highest level with a Ministerial launch of the initiative at Parliament in December 2015. Connexis has been instrumental in setting up the quality processes for the Civil Trades Certification.

Previous quality assurance history:

The previous InfraTrain external evaluation and review (EER) was in October 2010. NZQA was Highly Confident in both the ITO's performance and its capability in self-assessment.

The previous ESITO EER was in 2010. NZQA was Highly Confident in both the ITO's performance and its capability in self-assessment.

This is Connexis's first EER since the merger of the above two ITOs.

The Tertiary Education Commission (TEC) recently confirmed increased funding for Connexis's 2015 investment plan and acceptance of the 2016-2017 investment plan.

A TEC audit in June aligned to the performance commitments in the investment plan and the associated funding obligations between the TEC and Connexis outlined six recommendations that have since been completed:

- Internal audit of the re-boot funding
- Quality assurance audit process to review data reported in source documents
- Update the quality management system
- Monitor achievement in TEC-funded programmes
- Advise when training agreements are attached in ITOMIC (the Connexis training management system)

Recent NZQA moderation reports showed that all units moderated by NZQA in 2014 met the national standard. One unit standard did not meet the

national standard for external moderation in 2015. This has since been addressed through internal moderation processes.

Other ITO moderation showed that two unit standards did not meet moderation requirements in 2014. This improved in 2015, with one unit standard not meeting moderation requirements.

NZQA had no credit reporting issues with Connexis.

Other:

Programme and credit completions for 2014 exceeded expectations. However, in 2015 completions did not go to plan owing to significant market shifts and consequent lower trainee numbers and revenues (especially in the electricity supply sector). The significance of market changes and impacts has required a recasting of Connexis's strategic business plan for 2016-2018.

2. Scope of external evaluation and review

This evaluation included four focus areas:

Governance, management and strategy

This is an important area of investigation following the strategic changes since the mergers, and market changes in infrastructure training.

Trade Certification Level 4 Civil Trades

Before 2016, the infrastructure industry did not have a recognised apprenticeship pathway. In 2015 Connexis launched the Trade Certification Level 4 Civil Trades. Connexis worked closely in partnership with Civil Contractors New Zealand to get this Civil Trades Certification recognised, and both organisations work together to manage the training of Civil Trades Certification evaluators. Connexis worked with industry to develop the programme and promote the career pathway to certification. This focus area was chosen by the Connexis leadership team to provide a view of a new apprenticeship and career pathway.

Civil work includes both large multinational and small to medium sized operators.

Line Mechanic level 4

Electricity is a highly regulated industry reflecting the risk to people. Training is driven by legislation and often has different modes of blended delivery with specific capstone units to meet Electrical Workers Registration Board requirements. This focus area provides the opportunity to review outcomes and progression across qualifications in the sector and to see how Connexis measures success.

Assessment and moderation

This focus area was selected by the Connexis senior leadership team in acknowledgment of the ageing of assessors and moderators in some civil sectors. Many are more than 50 years of age, and there is an urgent need to revitalise much of the infrastructure workforce to ensure effective assessment and moderation capability. Connexis has begun assessor training to ensure a qualified infrastructure workforce. A panel of 10 moderators acts in a guardianship role over all areas to offer support for the Connexis quality assurance team.

Focus areas 2 and 3 above (Trade Certification Level 4 Civil Trades, and Line Mechanic level 4) represent the largest percentage of all Connexis learners. NZQA and the Connexis leadership team agreed that the focus areas were representative of Connexis's recent and relevant industry training activities.

The water industry was not chosen as a focus area because, while distinctive and different from the other two, it is in the relatively early stages of development. The 'new' New Zealand qualifications for water (developed under Primary ITO) are not really fit for purpose and need redeveloping (according to the sector manager and industry stakeholder group). Although these qualifications are almost due for review, no new/updated programmes have been developed or approved.

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 document Policy and Guidelines for the Conduct of External Evaluation and Review available at: <http://www.nzqa.govt.nz/for-providers/keydocs/index.html> [Refer to ITO supplement]. 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.

The lead evaluator and evaluation capability advisor met with the Connexis senior management team in Wellington some months prior to the evaluation to explain the evaluation process and to work through and finalise the scope and outline the conduct, agenda and arrangements for the EER.

The four evaluators involved in the EER were invited to attend the annual plenary session of the Connexis Board, stakeholder council and industry stakeholders in Auckland. Three evaluators attended the plenary session and then separated to

attend the individual focus area stakeholder meetings of water and electrical. The head of the civil industry stakeholder group met briefly with the evaluators.

The following week, the full team of four evaluators spent three days interviewing and viewing documentation at the Connexis Hamilton offices.

The evaluation team interviewed the Board chair, the chief executive, the senior management team, quality managers, learning support and development advisors, qualification and resource development staff, moderation panel members, and support staff.

External stakeholders, trainees, employers and graduates were met with or telephoned over the three days of the EER.

Discussions were held with the TEC and NZQA staff before the site visit to inform this evaluation.

Prior to the EER visit, the evaluators considered a wide range of information provided by Connexis. The evaluators requested and considered additional Connexis and TEC documents during and after the visit.

Summary of Results

Statement of confidence on ITO performance

NZQA is **Highly Confident** in the performance of Infrastructure ITO. The reasons for this judgement include:

- It is clear from demonstrated evidence that Connexis understands and is meeting the needs of the civil and electrical industries well, as well as their employers, trainees, apprentices and government agencies, resulting in relevant standards, qualifications and training. Examples of engagement with industry include active industry stakeholder groups and an industry moderation panel with highly experienced assessors and moderators working in specific industry sectors.
- The organisation has faced challenges with respect to the mergers and managing the Targeted Review of Qualifications process. Bringing the different systems together and continuing to maintain strong relationships with industry has been a focus for energy and resources. This process has been managed in a staged way with the chief executive and Board responding well to the various feedback from stakeholders.
- Trainees achieve well and are achieving credits, completing programmes, and gaining qualifications and trade certification that reflect the skills of their respective industries. This is the result of the effectiveness of the training arranged by the ITO and the quality of the assessments undertaken towards industry standards, certification and qualifications.
- The ITO uses robust and effective quality assurance processes and compelling moderation systems to ensure that providers and assessors are assessing in a way that is valid, fair and consistent.
- ITOs are expected to receive cash contributions from the industries they represent of at least 20 per cent of the total funding the ITO receives. Connexis is supported well by its industries, with a 68 per cent industry cash contribution. The willingness of the industries to provide cash contributions at this high level is an important test of the relevance and value of the qualifications and standards offered by Connexis.
- Through meeting the most important needs of its key stakeholders and trainees, the value of the outcomes for Connexis employers and their trainees is very high. There is clear evidence of effective processes that contribute to training and assessment, and the relief of skill shortages and other related outcomes, including a pathway to higher-level qualifications and improved work productivity.

- There is effective leadership, with a well-defined and articulated purpose and direction and effective management of change which is well informed by a wide range of industry connections, research and experience.
- The ITO's governance and management support the organisation to fulfil its statutory functions and requirements extremely well. Board members and management are clear about the strategic aims of the ITO as set out in the strategic plan 2016-2018. The strategic aims emphasise and support the statutory roles of the ITO and the need to work with industry, employers and the government.
- With full Board approval, Connexis invests significantly in ongoing development of technological resources that support successful training and assessment and also support the trainees, their trainers and employers.

Connexis is meeting the needs of its key stakeholders, and valuable outcomes are achieved for all parties. Consequently, the evaluation team is highly confident in the ITO's educational performance.

Statement of confidence on capability in self-assessment

NZQA is **Highly Confident** in the capability in self-assessment of Infrastructure ITO.

The reasons for this judgement include:

- Self-assessment is authentic and ongoing. Connexis clearly identifies any gaps in educational performance and any needed changes to its qualifications and unit standards.
- The ITO uses a range of formal and informal self-assessment processes to understand the effectiveness of its training and the progress being made towards assessment completions. This process has been used to inform and initiate related changes and improvements.
- Learner achievements are monitored and analysed across each industry sector on a regular basis. The data is reviewed and measured against set targets and, along with related information, is discussed with the ITO Board on a regular basis.
- Employer and trainee surveys are used, together with other quantitative surveys, to enable Connexis to gain a good understanding of stakeholder needs on an ongoing basis, and make related changes as required. The ITO also anticipates and responds to change based on its connections with a wide range of interested parties and effective research-based projections about the future.
- Survey results, together with internal and external engagement, are also used to inform strategic and operational changes. For example, in response to feedback a recent significant operational change included a post-merger

strategy that has seen the creation of the 'Connexis way' to enhance consistency of operational practices across the industry sectors it serves.

- Self-assessment has also led to Connexis investing additional resources in 2016 to further strengthen staff capabilities and understanding of customer/stakeholder needs, and to respond flexibly and quickly to meet those needs.

Overall, Connexis uses a range of self-assessment processes across the ITO to inform itself of the effectiveness of both the on-job and off-job training and its related assessment practices and processes. The ITO continues to meet the needs of its key stakeholders. This has led to a number of important and significant changes, resulting in the evaluation team being highly confident in the ITO's capability in self-assessment.

Findings¹

1.1 How well does the ITO understand and meet the needs of industry, trainees and government?

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**.

Connexis has a range of approaches and reporting mechanisms via industry stakeholder groups and Connexis assessors, moderators and customer relationship staff to understand and meet the needs of its industry groups, employers, trainees and government agencies well.

The ITO has electrical, civil and water industry stakeholder groups, representative of each sector, who share relevant information between the industries they serve and the ITO's Board and industry stakeholder council.

The ITO's connectedness with its industry and leadership has resulted in strong industry penetration and support. The 'industry-led' nature of the industry training system helps ensure a very engaged industry stakeholder council and industry board.

Connexis is aware through industry connections of a decrease in industry demand for electrical supply trainees, which informed relevant changes to its 2016 business plan. To support industry training, the ITO is actively involved and supportive of its key Line Mechanic training provider, which initiated an Annual Connection event. The event involves teams of line mechanics across New Zealand competing in activities relating to the demonstration of skills, and the importance of safety.

The engagement approaches from Connexis to its key stakeholders include direct personalised contact, management-level contact at a regional level, and high-level strategic dialogue with national partners. Information about stakeholder needs is collected through industry representation, industry outreach, a benchmarking survey and surveys completed by external agencies.

Employer and trainee surveys together with other quantitative surveys (benchmark survey) and national and regional research enable Connexis to gain a good understanding of stakeholder needs on an ongoing basis. Survey results, together with internal and external engagement, are used to inform strategic and operational changes. For example, in response to the benchmark survey, a post-merger strategy has seen the creation of the 'Connexis way' to enhance consistency of approaches across industry sectors. This has resulted in changes to the ITO's management structure and related staff reporting roles and responsibilities. The ITO has invested additional resources in 2016 to strengthen staff capabilities and

¹ The findings in this report are derived using a standard process and are based on a targeted sample of the organisation's activities.

understanding of customer/stakeholder needs, and to respond flexibly and quickly to meet those needs.

A 'women in infrastructure' project has been created by Connexis to build on the Ultimit project (originally initiated by ESITO) to encourage employment of more women in the electricity industry, particularly line mechanics. This is also intended to help meet the future growth in demand for line mechanics, due to the known ageing population of employees in this sector.

The cash contribution (68 per cent) made to Connexis by its industries is a positive indicator of how well the ITO understands and meets the needs of the industries it is responsible for. It is important that industries contribute to the costs of industry training to demonstrate their commitment to the training and assessment of employees and to ensure businesses drive good customer service from ITOs including relevant training standards.

Overall, the ITO is able to demonstrate that it is managing its role as an ITO for the infrastructure sector to meet skill shortages and contribute to ongoing training development for employees and employers.

1.2 What is the value of the outcomes for employers and their trainees?

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 **Good**.

Connexis keeps track of and is aware that its qualifications and related training arrangements are meeting stakeholder needs and are of value to employers and trainees. This was evident from staff, trainees, graduates and stakeholder interviews, together with documents viewed. In addition, from the last three independent consistency reviews of the ITO's qualifications, Connexis was able to provide a range of evidence to demonstrate that its graduates were achieving the most important outcomes of the qualifications' graduate profiles. It also had highly effective processes to show this was happening consistently across providers.

From the focus areas reviewed, it was evident that positive outcomes are achieved, which are highly valued by the ITO's stakeholders and graduates. Recent data collected by the ITO showed that 74 per cent of graduates who completed the Line Mechanic qualification had used this to pathway to higher-level qualifications within the electrical sector. As a result of acquiring the qualification, and its related skills and competencies, graduates (employees) not only improve their work productivity but also attain registration with the Electrical Workers Registration Board, which has resulted in higher-paid/related jobs in the industry. In addition, it was evident from stakeholder and graduate interviews that retention rates remain high in the industry. Furthermore, the improved levels of skills and competencies acquired by graduates in recent years is viewed by the Electrical Workers Registration Board as an important contributor to the significant reduction in workplace accidents and

incidents within the industry, providing benefit not only to employers but also the broader community.

Implementation of the new suite of level 4 Civil Trades qualifications is still under development. As part of this development, a pilot study was recently conducted which involved the assessment of 14 experienced infrastructure industry workers using a Recognition of Current Competency process. Students who had completed the pilot programme attested to the value of gaining the qualifications. Some identified further paths for themselves in the sector, including becoming an on-job assessor for the apprenticeship scheme that is starting soon. Infrastructure industry representatives recognised the value of the qualifications and education pathways that have been developed and their direct relationship to the industry's Civil Trades Certification scheme. Recognition of skills and trade certification and the career path it represents is expected to be an important tool for recruitment into the industry to meet future growth.

Overall, the ITO has strong industry support, which is evident from its 68 per cent industry cash contribution. This is significantly above the value of the minimum expected contribution of 20 per cent of the total funding an ITO receives.

Graduates who gain the ITO's qualifications acquire and are able to demonstrate the use of related skills, knowledge and attributes in real situations of relevance to their work. While Connexis met all the performance criteria in recent consistency reviews conducted, it was noted from their own self-assessment documents, provided at the most recent reviews, that further improvements could be made to further enhance the evidence collected. Connexis is currently addressing these matters, including the development of its new database (which is intended to strengthen staff and stakeholder communications), as well as the creation of an end-user survey to help triangulate the evidence to confirm consistency.

1.3 How well do trainees achieve?

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 **Excellent**.

As detailed in Table 1, good overall credit and programme completion rates have been achieved during the past two years. Electrical industry learners had high levels of achievement in 2015. Also, as noted in Focus Area 2.3, the New Zealand Certificate in Electrical Supply (Line Mechanic Distribution) (Level 4) has shown consistently high levels (averaging 90 per cent) of qualification completion rates over the past five years.

Table 1. Connexis ITO: completion rates for trainees and apprentices (2014-15)*

Credit completions*	2014 Achieved (target)	2015 Achieved (target)
Civil	75% (75)	65% (78)
Electrical	77% (75)	110% (78)
Water	N/A	84% (78)
Overall	80% (75)	82% (77)
Māori	106% (75)	61% (78)
Pasifika	67% (75)	39% (78)
Under 25s	139% (75)	82% (78)

Programme completions*	2014 Achieved (target)	2015 Achieved (target)
Civil	49% (65)	63% (67)
Electrical	74% (65)	104% (67)
Water	N/A	N/A(67)
Overall	65%	64%
Māori	72% (65)	60% (67)
Pasifika	48% (65)	40% (67)
Under 25s	139% (65)	82% (67)

* Based on data provided by Connexis. The annual data can be variable due to completion overflows from the previous year, and where enrolment and completion numbers are significantly different between the years.

Learner achievements are monitored and analysed by Connexis across each industry sector on a regular basis. The data is reviewed and measured against set targets, with related information provided to the ITO Board on a regular basis. In addition, course and programme completions data is also collated and discussed to ensure the ITO meets its performance target for TEC funding.² This target was met in 2014 and for 2015.

Māori and Pasifika learners have high credit and programme completion rates at levels 4 and above, which are similar to non-Māori and non-Pasifika learners. In 2015, Pasifika learners had much lower programme completion rates (28 per cent) at levels 1-3 when compared with overall achievement at this level (65 per cent). It is recognised that Pasifika learners account for only 5 per cent of all learners at these levels. The ITO has put in place a specific reporting requirement to capture trends to gain a clearer understanding of activities that support participation and improved achievement by Māori and Pasifika.

² This requires 80 per cent of its learners to achieve a minimum threshold of 10 credits per year.

The ITO's robust assessment and moderation processes give credibility to overall achievements. There are good self-assessment processes for the continuous improvement of assessments to ensure trainees are meeting standards. For example, on-job assessment for the electrical supply trainees was strengthened through increasing the number of on-job attestations and ensuring at least one was completed by an assessor or industry expert. Evidence requirements were also strengthened. In addition, while a number of new level 4 Civil Trades qualifications in civil engineering are yet to be delivered or assessed, a pilot study – involving a process for the Recognition of Current Competency for a number of experienced people in the industry – has been implemented effectively, with all trainees involved completing successfully. The Recognition of Current Competency was endorsed by the Civil Trades Certification Board as being an excellent process, providing confidence that learners completing the qualification gain the required skills and competencies.

As noted in Findings 1.4, the ITO also provides regular support and guidance for its learners. From graduate interviews it was evident that such support is valued and provides useful information to maximise completions.

Upon completion, graduates not only achieve qualifications but also gain higher-paid jobs in their industry, with many pathwaying to higher-level qualifications. For example, learners who complete the Line Mechanic qualification are able to become registered with the Electrical Workers Registration Board. Such registration meets the minimum entry requirements for a range of employment options in the electrical industry, as well as encouraging further study in specialist areas.

1.4 How effective is the training arranged by the ITO?

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**.

Connexis has strong and effective processes for monitoring the training and related assessment processes for accredited training providers delivering its qualifications and unit standards. Effective quality assurance processes are used for training providers, which include a formal accreditation process, moderation and provider evaluation visits. These visits are used to evaluate the provider against sector-specific criteria covered by Connexis's consent and moderation requirements. A small sample of evaluation reports viewed by the evaluation team demonstrated an evidence-based approach to understanding training effectiveness.

Development of trainees' skills, knowledge and competencies is largely achieved through on-job training. The Electrical Workers Registration Board identified that in the electrical industry far fewer workplace incidents have been reported for investigation since greater emphasis was placed on practical, on-job focused training. To ensure the training and related assessment practices are effective, the ITO also ensures there is a strong connection between the on-job and off-job

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training components. This was confirmed by employers and graduates interviewed, and from documents viewed. For example, the practical on-job learning for the New Zealand Certificate in Electrical Supply (Line Mechanic Distribution) is monitored effectively through the use of logbooks. These are used in conjunction with attestation forms (signed off by experienced workplace supervisors registered with the Electrical Workers Registration Board) to validate that the related skills and competencies have been demonstrated in practical situations. In addition, to confirm that these skills have been acquired, the signed-off logbooks and attestation forms, together with a portfolio of supporting evidence (including 'tailgates' and photographs), are then presented to the off-job trainer (a registered assessor) who uses them for assessment during the block courses.

Connexis has in place processes to ensure trainees who may require additional support are identified on enrolment. Trainees with language, literacy and numeracy issues are encouraged to attend periodic one-day training sessions organised by Connexis. These focus on providing related support and guidance to maximise their learning and progression. Ongoing support and guidance also occurs for all trainees throughout the training period. For apprentices, related support and guidance is provided by workplace supervisors for the on-job training. In addition, Connexis also provides related support and guidance through quarterly site visits (either at the on-job or off-job locations), undertaken by their customer service area managers. Such visits are used to discuss progress with each trainee and provide related guidance on future pathways for completion. Graduates interviewed confirmed that this was helpful and valued, although the amount of paperwork needed for the final assessments by the off-job trainer was a challenge and sometimes confusing for them.

The ITO engages with its workplace stakeholders and off-job providers to ensure the skills and knowledge acquired through the training are meeting the needs of employers and employees. An example is the Annual Connection event involving teams of qualified employees and trainees from around the country competing in a range of practical activities. The event emphasises the importance of applying relevant skills in different contexts, as well as the importance of safety.

Connexis uses a range of formal and informal self-assessment processes to understand the effectiveness of the training and the progress being made towards assessment completions. As noted in Findings 1.5 below, Connexis systematically tracks the unit standards being assessed and moderated, and responds to the feedback sought from trainees, assessors and moderators. A six-monthly benchmark survey is also used to gain feedback from trainees and employers. The survey includes a broad range of questions relating to the industry training and assessments, including satisfaction levels with Connexis and individual providers. The latest survey results showed overall positive feedback, with 90 per cent of electrical trainees and 88 per cent of civil trainees who recently completed the qualification saying they had learned the skills needed for the job. While the ITO does not appear to look into the full details of the survey results, they do look at the big picture/areas of critical importance and develop relevant changes/strategies.

For example, the ITO is aware that further improvements in customer relationships, including with trainees, could be made. Consequently, there is a key focus in the 2016-2018 strategic business plan on improving capability at organisational and individual levels to ensure the training continues to be effective and is meeting employers' and employees' needs. This is also noted in the recently updated 2016 business plan, which recognises that customer engagement and communication is of critical importance and will need investment in people, processes and tools. Key performance indicators are used to measure capability improvement and trainee growth.

1.5 What is the quality of the assessment being undertaken towards industry standards and qualifications?

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**.

In line with the organisation's strategy, assessment and moderation processes are currently being consolidated to create standardisation where possible across the different industries, while allowing industry-specific processes that are working well to be retained and documented. The ITO has a good understanding of which programmes' standards and assessments need improvement and is taking a staged approach to address this. Staff from the quality assurance team spoke of the need to transition some trainers, assessors and moderators from a traditional exam-type approach to one that encouraged on-job assessment for learning and naturally occurring evidence. As part of the consolidation process, over 2016 Connexis is rolling out a new assessment and moderation policies and procedures document.

Assessments are carefully designed and pre-moderated to ensure they support learning. Assessment design begins with the industry expert. Assessments are then developed in consultation with instructional designers and those with expertise in embedding literacy and numeracy, when required. All assessments are pre-moderated. As noted in Findings 1.4, the Line Mechanic qualification provides a good example of how assessment in the workplace supports learning.

Other on-job evidence includes attestations, 'tailgates' and photos. This evidence must be available for the training provider who uses it to determine whether the trainee is ready for their final competency assessment. Juggling this paperwork can be a challenge for some trainees, who need to chase up evidence before being signed off as competent.

Quality processes are documented through the development of the Recognition of Current Competency process for the Civil Trades Certification. The process was piloted and carefully moderated to ensure evidence of achievement is robust. For example, following the pilot, professional conversations to determine competency have been strengthened. Connexis's evidence-based approach is supported by the *Final Report*

fact that in the eight consistency reviews Connexis has participated in, they have been able to demonstrate that the graduates have met the graduate outcomes. Connexis recognises that not all standards and assessments in their scope are of high quality, but is working with the resources available to respond to feedback and make improvements.

Effective processes are used to ensure that providers and assessors are assessing in a way that is valid, fair and consistent. All assessors must meet minimum requirements specified in the Connexis assessment and moderation policies and procedures. New assessors undergo necessary training, are informed of their scope, and are then connected with a mentor to support them develop in the role. In addition, all assessors are required to participate in post-assessment moderation of their first two assessments, and then ongoing post-assessment moderation as called upon. In addition, to retain registration as an assessor, they are required to attend assessor forums. Assessment and moderation at Connexis is supported by a moderation panel which includes highly experienced assessors and moderators working in specific industry sectors. This group acts as mentors and advisors to support and develop assessors, moderators and assessment processes and policies.

Particularly notable was the explicitly supportive, quality improvement approach taken with respect to moderation. This has required a significant shift for some assessors and moderators. The moderation panel noted that when problems are identified with assessment, the moderators respond immediately and have a conversation with the assessor to support their understanding. Assessors and moderators across the focus groups shared their experiences of working with mentors and moderators to improve assessment.

Self-assessment processes ensure that Connexis is systematically tracking the units being assessed and moderated, and responding to feedback sought from trainees, assessors and moderators through formal feedback processes. Where gaps in quality have been identified, staff are working systematically to close them. Assessors and training providers are also monitored, and those who are identified as needing improvement are given the support to improve. If improvement does not result, accreditation is withdrawn. Assessor forums are evaluated and the feedback is used to ensure the time is used productively. Feedback viewed by the evaluation team showed assessors were generally very positive about the usefulness of the forums. Connexis demonstrates a willingness to listen to its stakeholders with respect to changing the way assessor forums are held, for example moving to industry-specific forums.

1.6 How well does the ITO's governance and management support the ITO to meet its statutory functions?

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**.

High-quality governance is important for the effective performance of the functions of Connexis. The ITO's governance and management teams support and understand and meet the needs of industry, trainees and government well. Connexis has effective governance and management values, systems and processes which enable it to articulate a clear purpose and direction and undertake activities accordingly. The ITO Board and management effectively respond to industry changes and allocate resources efficiently to maintain the development of a skilled and qualified infrastructure workforce.

Board members and management are clear about the strategic aims of the ITO as set out in the strategic plan 2016-2018. This plan is included in all Board papers, and the chief executive reports to the Board against the aims set out in this document. This provides a common view of the direction of the organisation. The strategic aims emphasise and support the statutory roles of the ITO and the need to work with industry, employers and government.

The Board is strongly committed to industry and focused on meeting the needs of all industry groups. Each industry actively engages with Connexis through their industry group via an industry council (still in its infancy) which is a component of the governance structure of the ITO.

The management team is led by an experienced chief executive who works closely with the independent Connexis Board chair. The Board and management are in continuous contact, with the Board extending its role beyond monitoring and fiduciary control to working with management to better define areas the ITO should prioritise in consultation with industry stakeholders. An example of this is the ITO response to the 2015 downturn in outcomes and the realised need to slow down and consolidate and build organisational capability and consistency processes and invest in improvements. As a result, Connexis has begun to build its customer service capability and capacity to ensure that industry-specific needs are understood and responded to. The Connexis Board is investing in additional resources in 2016 to further strengthen staff capability and understanding of customer/stakeholder needs to respond flexibly and quickly to meet those needs.

Governance structures are constantly being reviewed to best meet the ITO's strategic goals. An example of this is the two-yearly rotation of Board members, which enables the Board to be proactive to industry and fill any skills gaps and hold members to account.

A key focus of the 2016-2018 strategic business plan is on improving capability at organisational and individual levels to ensure training continues to be effective and is meeting employers' and employees' needs. This recognises that customer

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engagement and communication is of critical importance and will need related investments in people, processes and tools.

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 ITO performance is **Excellent**.

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

The evaluators' views on this focus area are covered under Findings 1.1-1.6, especially 1.6.

2.2 Focus area: Trade Certification Level 4 Civil Trades

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

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

Connexis has strong and productive relationships with the civil infrastructure sector which enable it to identify and meet many of the industry's training needs. Examples of the benefits arising from the strong relationships include the development of the new suite of level 4 Civil Trades qualifications and qualification pathways in civil engineering, its appointment as the service provider for the Civil Trades Certification Board, and the Recognition of Current Competency process for new qualifications. This latter process is an important component of the introduction of the new qualifications as it enables experienced people working in the industry to gain recognition of their skills and competencies.

Connexis has not yet started implementation of the new level 4 Civil Trades qualifications, apart from a pilot which assessed 14 experienced industry workers using the Recognition of Current Competency process. Both Connexis and the Civil Trades Certification Board recognised the importance of gaining industry confidence in the Recognition of Current Competency process as it forms an important part of the industry's plan to move to a more qualified workforce. To this end, Connexis ensured that the pilot had robust moderation and was also reviewed for the Civil Trades Certification Board. The review described Recognition of Current Competency as an excellent process, well designed, simple in execution and effective in delivery. Where moderation identified potential improvements, these were dealt with effectively by Connexis in a timely manner. Connexis has also implemented a requirement that people assessing using Recognition of Current Competency have undergone appropriate training. The value of the process for recognising the skills and knowledge of staff who have been working in the industry for several years is shown by the high level of industry support. For example, one employer indicated that they hope to have approximately 40 staff undertake Recognition of Current Competency this year.

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The development of materials in preparation for delivery of the level 4 Civil Trades qualifications later this year has good processes to ensure that learning materials and assessments are relevant, reflect current industry practice, and are at an appropriate level. To ensure this, Connexis has an agreement with a consortium of employers to review and provide feedback on the materials. The employers represent a microcosm of the wider New Zealand civil infrastructure industry. This enables Connexis to achieve a whole-of-industry, fast-tracked review. There are effective and transparent processes for using industry input and for providing feedback to industry. The use of such a mechanism will serve to further enhance industry's confidence in the new qualifications.

Students who had completed the pilot programme and gained Civil Trades Certification attested to the value of gaining these qualifications. Some identified further career paths for themselves in the sector, including becoming an on-job assessor for the apprenticeship scheme that is starting soon. Industry representatives recognised the value of the qualifications and education pathways that have been developed and their direct relationship to the industry's Civil Trades Certification scheme. Recognition of skills and trade certification and the career path it represents is expected to be an important tool for recruitment into the industry to meet future growth.

2.3 Focus area: Line Mechanic level 4

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

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

The Line Mechanic certificate remains current and is meeting industry and stakeholder needs. This is evident from the recently completed Targeted Review of Qualifications process, involving active engagement and leadership from the ITO, resulting in the approval of the current Line Mechanic qualification. To ensure this and other electrical qualifications and standards maintain currency, the ITO has established an Electrical Industry Stakeholder Group, representative of the electrical sector. Enhancing the reciprocal communication processes for sharing information between the industry it serves and the ITO's Board and industry stakeholder council is part of Connexis's strategic objectives.

At an operational level, Connexis has used surveys from employers, trainees and training providers to gather relevant information to gain a good understanding of stakeholder needs. Survey results, together with internal and external engagement, are used to inform strategic and operational changes. For example, Connexis is aware of a recent decrease in industry demand for electrical supply trainees, largely due to emerging technological changes and asset investments, which has resulted in relevant changes to its 2016 business plan.

The ITO is also attentive to the need to ensure its trainees reflect community demographics. A post-merger strategy has seen the creation of a 'women in infrastructure' project, which builds on the Ultimit project (originally initiated by

ESITO) to encourage employment of more women in the electrical industry, particularly line mechanics. This will also contribute to meeting the likely future growth in demand for line mechanics given the ageing population of employees in the electrical sector.

To encourage high levels of trainee competency and achievement, Connexis is actively involved and supportive of its key line mechanics training provider, which initiated the Annual Connection event (Findings 1.4).

Qualification achievement enables graduates to attain registration with the Electrical Workers Registration Board, which results in higher-paid/related jobs in the industry. A large majority of Line Mechanic graduates are retained in the industry, with recent data showing 74 per cent pathwaying to higher-level qualifications within the electrical sector. The ITO's data (see Table 2) also shows consistently high levels (90 per cent) of qualification completions over the past five years.

Table 2. New Zealand Certificate in Electrical Supply (Line Mechanic Distribution) (Level 4)

Year*	Nos completed	Nos enrolled in year	% Completions
2010	35	40	88%
2011	44	59	75%
2012	80	86	93%
2013	130	135	96%
2014	97	111	87%
TOTAL	386	431	90%

*Figures for 2015 are not yet available

The high level of achievement, confirmed by the use of effective assessments and related moderation processes (as outlined below), is a strong indication that the training arranged for the apprentices is working well. This is further supported by the strong correlation between on-job and off-job-training. The emphasis on the on-job training is viewed by all parties as being of critical importance in the development of the skills, knowledge and competencies required. As noted (Findings 1.4), the practical on-job learning is monitored effectively through the use of logbooks.

Connexis is aware that the effectiveness of the training arrangements has added value for graduates and the broader community. Of particular importance is that far fewer workplace incidents have been reported to the Electrical Workers Registration Board (and resulting deregistrations) since the practical on-job focused training (with the related off-job assessments) was introduced. This was confirmed by the Electrical Workers Registration Board.

Trainees requiring additional support are identified at the commencement of the course. For example, trainees with language, literacy and numeracy issues are

monitored and supported, and if required attend one-day training sessions arranged by Connexis. Ongoing support and guidance also occurs for all trainees throughout the training period. Connexis undertakes quarterly site visits (either at on-job or off-job locations) to discuss trainee progress and provide related guidance on future pathways for completion. Graduates interviewed confirmed that this is helpful and valued, although it could be further enhanced towards the end of the training period to avoid delays in trainees acquiring their qualification. For example, trainees could be given sufficient notice and be made aware of all the information and evidence they must gather in preparation for their final assessments and subsequent application for registration with the Electrical Workers Registration Board.

2.4 Focus area: Assessment and moderation

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

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

Comments in Findings 1.5 also apply to this focus area.

Effective and systematic external moderation processes are used to ensure the training providers' assessments and assessor skills and qualifications are checked (including periodic provider evaluation visits) to ensure compliance with the ITO's moderation and assessment policies and procedures. Moderation procedures involve a range of 'control points', with related criteria, for prioritising unit standards for moderation, including those involving high risk (safety/risk within the industry) and high usage. From documents viewed, it was evident that moderation results are reviewed and any not meeting the related standards are followed up, with related advice and information supplied to the assessor. To further enhance the validity and reliability of the assessments, the off-job training provider interviewed by the evaluation team uses an experienced external moderator as part of its own internal moderation processes.

It is important to note that the Connexis processes for assessment and moderation are currently being consolidated to find processes that can be standardised and processes that are unique to industry groupings. The ITO has a good understanding of where assessment quality needs improvement, and is taking a staged approach to address this. In addition, Connexis is rolling out a new assessment and moderation policies document during 2016.

Recommendations

NZQA recommends that Connexis:

- Ensure trainees are given sufficient notice and are fully aware of all the information and documented evidence they must gather in preparation for the final assessments undertaken by the off-job training provider and their subsequent application for registration with the Electrical Workers Registration Board.
- Identify relevant trends from the self-assessment of learner achievement (e.g. over time and by Māori and Pasifika learners), and investigate/make related changes as needed.

Appendix

Regulatory basis for external evaluation and review

In 2009 NZQA introduced the evaluative approach to quality assurance in the tertiary education sector, consisting of self-assessment and external evaluation and review. This is applied in the quality assurance of programme approvals and accreditations under sections 249 and 250 of the Education Act 1989, as well as for training schemes (section 251), consents to assess against standards (section 252) AND PTE registration under Part 18 of that Act.

The NZQA Board also published policies and guidelines for the conduct of external evaluation and review of ITOs on 27 May 2010. NZQA relies on ITOs to build the self-assessment and external evaluation and review model into their infrastructure. ITOs will be evaluated on their infrastructure and use of the model in the following ways:

- Advising Ministerial recognition of an ITO under the Industry Training Act, 1992*
- Accepting arrangements for monitoring and assessing of industry training under section 10 of the Industry Training Act 1992*
- Registering standards on the Directory of Assessment Standards*
- Awarding consents for ITOs (or their assessors) to assess against standards on the Directory of Assessment Standards under section 252 of the Education Act 1989*
- Applying programme approval criteria where ITOs are course owners.*

External evaluation and review is also used by NZQA as a monitoring and evaluation tool, with the outcomes of these processes informing Tertiary Education Commission decisions relating to re-recognition of an ITO. In addition, external evaluation and review reports are one contributing piece of information in determining future funding decisions in relation to an investment plan agreed between an ITO and the Tertiary Education Commission. The understandings and expectations for the implementation of ITO quality assurance are set out in a protocol to the Memorandum of Understanding between NZQA and the Tertiary Education Commission.

This report reflects the findings and conclusions of the external evaluation and review process, conducted according to the policies and criteria approved by the NZQA Board. The report identifies strengths and areas for improvement in terms of the ITO's performance and capability in self-assessment.

External evaluation and review reports are public information and are available from the NZQA website (www.nzqa.govt.nz).

*Information relevant to the external evaluation and review process is summarised in the publication *Policy and Guidelines for the Conduct of External Evaluation and Review*. Two other documents explain how the process is applied to ITOs: *EER Policy and Guidelines – ITO Supplement* and *Evaluation Indicators for Industry Training Organisations*. These documents are available at:
<http://www.nzqa.govt.nz/providers-partners/registration-and-accreditation/external-evaluation-and-review/policy-and-guidelines-for-eer-ito/introduction/>*

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