

Siemens plc

Employer provider

Inspection dates

16–19 August 2016

Overall effectiveness**Outstanding**

Effectiveness of leadership and management	Outstanding
Quality of teaching, learning and assessment	Outstanding
Personal development, behaviour and welfare	Outstanding
Outcomes for learners	Outstanding
Apprenticeships	Outstanding
Overall effectiveness at previous inspection	Good

Summary of key findings

This is an outstanding provider

- Through highly effective training, apprentices emerge as self-confident and able engineers who can lead teams, manage large projects and provide innovative solutions.
- Apprentices follow well-structured programmes that go above and beyond the minimum standards required for their qualification. They gain the specialist skills they need to prepare for advancement in the company and work towards higher-level qualifications.
- Almost all apprentices complete their qualifications to a very high standard. The proportion of apprentices who complete their qualifications on time has increased substantially and is very high.
- Leaders have created outstanding opportunities for apprentices to begin a long and fruitful career in the company.
- Resources in the training centres and in the workplace are exemplary, preparing apprentices exceptionally well for work.
- Senior leaders ensure that all staff, including apprentices, demonstrate the company values, which reflect the British values of respect, integrity advocacy and democracy as well as innovation and ingenuity.
- Leaders have set an ambitious and innovative strategic direction that meets local, regional and national economic priorities exceptionally well.
- Siemens provides a work environment where all staff and apprentices are highly valued and encouraged to be themselves.
- Siemens has strong public service values that support education in schools well. Work with vulnerable groups, such as unemployed young people and offenders, promotes greater awareness of the value of science, technology, engineering and mathematics (STEM).

Full report

Information about the provider

- Siemens plc (Siemens) was established in the United Kingdom in 1843. They have trained apprentices since 1891. The company has 14,000 employees in the UK across 32 main sites, and had a turnover of £5 billion in 2015. Siemens' main activities are in 10 business units that reflect the local, regional and national economic growth needs of the areas in which they are based. Consequently, Siemens has around 500 apprentices across each of the business units, specialising in areas such as energy management, wind power and renewables, power generation, rail engineering, mechatronics and electronic engineering including health screening and traffic management systems.
- Siemens Professional Education (SPE UK) coordinates apprenticeship provision to ensure that each apprentice follows a standardised and moderated programme of training that meets the requirements set by the company as well as the needs and expectations of the individual business units in which apprentices work. Apprentices complete their competence-based and subject-knowledge engineering qualifications in Siemens specialist training centres or Siemens academies and partnership colleges during the first two years of the apprenticeship. Industry experts assess advanced level competencies in the workplace as apprentices near the end of their apprenticeship.

What does the provider need to do to improve further?

- Ensure that summaries of self-assessment fully reflect the strengths and achievements of the apprenticeship programme, so that board members can set accurate and challenging targets for development and achievement.
- Share good practice in improving apprentices' English skills, by:
 - marking portfolio work thoroughly and providing detailed feedback to help apprentices improve spelling, grammar and punctuation.

Inspection judgements

Effectiveness of leadership and management is outstanding

- Leaders and managers have established an aspirational culture and ethos throughout Siemens. They recognise and value the extensive and positive contribution that apprentices make to the company. Staff at all levels and positions in the company expect their apprentices to succeed, progress into sustainable employment and become the managers of the future. This reflects the excellent outcomes for apprentices and their progression into promoted posts. Leaders have successfully addressed all of the areas for improvement identified at the last inspection.
- Leaders have set an ambitious and innovative strategic direction, which aligns well with the values and expectations of the company to be the first choice apprenticeship provider in engineering worldwide. Leaders have been instrumental in developing appropriate and relevant engineering apprenticeship standards. The focus on long-term economic growth through their work with local authorities and local enterprise partnerships meets local, regional and national employment, training and regeneration needs exceptionally well.
- Leaders have created outstanding opportunities for apprentices to develop and progress their skills and careers. Consequently, apprentices make excellent progress in developing higher-level skills so that they enhance the products and services that their customers receive.
- Learning resources and equipment in the training centres and in the workplace are outstanding. Because apprentices use the most up-to-date equipment and technology highly effectively, they improve their understanding of the engineering sector and develop the technical skills they need to be prepared extremely well for work.
- Senior leaders and managers have embedded an open and approachable management style, which staff and apprentices across the company value highly. Leaders ensure that all staff and apprentices demonstrate the company values, which reflect the British values of respect, integrity, advocacy and democracy as well as creativity, innovation and ingenuity.
- Communication is particularly good. Frequent, decisive and highly effective meetings lead to rapid improvements to the provision for apprentices. Managers encourage staff and apprentices to challenge decisions and contribute their own ideas to proposed improvements. Apprentices contribute to decision-making by taking part in committees and steering groups including lean manufacturing, zero harm, British values and health and well-being. Apprentices also chair and take minutes of the apprentices' forum.
- Siemens managers use a well-planned and rigorous performance management process, with very effective support for staff to improve the quality of their teaching, learning and assessment sessions. Managers tackle underperformance well, ensuring that all staff meet the very high standards required. A comprehensive staff development programme enables all staff to enhance their teaching skills and technical understanding. Consequently, apprentices benefit from highly effective teaching and flourish.
- Through very effective quality improvement strategies, including self-assessment and performance reviews, managers sustain and improve the high quality of provision. Managers make very good use of feedback from apprentices and centre managers, and fully engage stakeholders from across the organisation. Managers quickly address any concerns raised by apprentices and deal promptly with sub-contractors or centres that do not meet the expected very high standards. Through the well-targeted interventions from Siemens managers, improvement is rapid.
- Siemens promotes equality and diversity exceptionally well, resulting in a work environment where all staff and apprentices are highly valued and encouraged to be themselves. Staff and apprentices do not tolerate bullying, discrimination or inappropriate behaviour. Managers and staff work hard to increase numbers from under-represented groups, for example by encouraging more females and people from minority ethnic groups to apply for the apprenticeship programme. An effective strategy to provide opportunities to disadvantaged groups has resulted in ex-offenders and those not in education or training successfully gaining places on apprenticeship programmes.
- While self-assessment at business unit level is detailed and managers respond very effectively to ensure that improvement happens, the summary self-assessment report does not communicate effectively enough the strengths and areas for improvement or set specific enough targets.

■ The governance of the provider

- The board and the apprentice management team offer highly effective and knowledgeable governance and set challenging targets for progress and improvement throughout the organisation. High levels of expectation from leaders and managers have inspired staff across the organisation, individually and collectively, to make a significant impact on sustaining the very high levels of apprentices' achievement.
- Senior leaders know the company well; they analyse meticulously the data and performance information they get to challenge leaders and ensure that the apprenticeship programme is exemplary. The apprenticeship management team have not provided board members with enough information on achievement to review sufficiently the highly effective interventions to improve the rate at which apprentices completed their apprenticeships.

■ The arrangements for safeguarding are effective

- Managers and staff promote safeguarding and health and safety particularly well at induction and throughout their programme by comprehensive support and training. Apprentices feel very safe and staff in each centre manage safeguarding concerns very effectively.
- Apprentices know how to keep themselves safe when using the internet and accessing social media sites. Managers ensure that all staff and apprentices understand and adhere to the highest standards of health and safety. Apprentices are very aware of the requirements to work safely in the training centres and in the workplace.
- Staff maintain an appropriately structured and up-to-date single central record of the checks made during recruitment. Designated safeguarding officers ensure that all staff have introductory safeguarding training and refresher training. Staff respond very quickly and effectively to any safeguarding concerns raised by apprentices and, where appropriate, refer to relevant external agencies for support.
- The senior safeguarding officer has received training in order to introduce workshops on raising staff awareness of the 'Prevent' duty and its application to the company and its subcontractors. All staff have received training under the 'Prevent' arrangements.

Quality of teaching, learning and assessment is outstanding

- Siemens apprentices thrive and flourish at work and throughout their training in the training centres and partner colleges. The investment in the resources that apprentices can use is substantial. For example, Siemens has invested £10 million installing full-size, operational wind turbines and generators in the renewables training centre. By working with highly qualified and expert staff, and with outstanding and up-to-date resources, apprentices develop a keen interest in learning new skills and rise to the challenges that their trainer/assessors and work supervisors give them.
- All staff have very high expectations of what apprentices can achieve. Trainer/assessors and work supervisors place a very strong emphasis on developing apprentices' analytical and problem-solving skills. As a result, apprentices demonstrate exceptional practical skills and excel in their academic studies. For example, on one site, apprentices set up a 'mini factory' for prototype development, which resulted in more cost-effective production in the main factory. Accordingly, apprentices are very confident and well-prepared for higher-level study and promotion. Apprentices also gain the wide-ranging general and specialist engineering skills they need because trainer/assessors and work supervisors collaborate well to enable apprentices to work in other departments throughout the company in the UK and Germany.
- Trainer/assessors develop apprentices' communication skills extremely well through highly technical work-related projects. They also encourage apprentices to review each other's work critically, so that every product they make meets rigorous company safety and operational standards and tolerances. For example, by analysing a working turbine and generator and through consultation with graduate engineers, apprentices designed and created a bespoke and fully operational model. They negotiated their own roles in the project based upon their engineering and managerial strengths and presented their final results at a parents review meeting.
- Apprentices keep detailed, well-structured and informative portfolios of the work they complete. Apprentices and assessors can see, at a glance, the progress they have made to date. This helps trainer/assessors and work supervisors provide additional support when required; for example, in updating knowledge about current electrical regulations, so that apprentices do not fall behind in their work. Where apprentices are behind set targets, trainer/assessors develop clear and precise action plans with work supervisors. This means that apprentices get back on track quickly. Apprentices make excellent use of high-quality video recordings of their work. This provides trainer/assessors, work supervisors and external quality assurance staff opportunities to validate the standards that apprentices demonstrate. This

is particularly effective for apprentices working on off-shore wind turbines.

- Through their workshop projects and written tasks, apprentices develop and apply their mathematical skills to a very high standard. Their written work in portfolios is equally strong. A very small minority of apprentices make mistakes in their spelling, punctuation and grammar that assessors and work supervisors do not always identify and correct. This is not helpful for apprentices looking to progress into managerial positions with the company at the end of their apprenticeship.

Personal development, behaviour and welfare

is outstanding

- Siemens apprentices wear their uniforms with pride and are justifiably proud of the work they produce. They emerge from their training as self-confident and able engineers who can lead teams, manage large projects and provide innovative solutions to improve business efficiencies. For example, apprentices working on the Crossrail project developed extremely competent signalling protocols to ensure the smooth and safe operation of the railway.
- Through a strong focus on problem-solving and the development of analytical skills, almost all apprentices deliver well-honed and carefully targeted reports and presentations that show their high standards of English. The apprenticeship programmes ensure that all learners, including the most able, take part in tasks and activities that extend their mathematics, computing, vocational and technical skills exceptionally well and reach their full potential.
- Apprentices follow well-structured programmes that go above and beyond the minimum standards for their qualification. In rail engineering, for example, apprentices work to achieve licenses from the Institution of Railway Signal Engineers. They gain a broad range of engineering skills and go on to gain more specialist skills. With support and advice from their trainer/assessors and work supervisors, apprentices make well-informed choices about their specialist pathways. This helps them to plan effectively for their long careers with Siemens.
- From a well-structured induction and by working with the Siemens business behaviour framework, apprentices gain a deep understanding of the behaviours and attitudes expected of a Siemens apprentice. Attendance and punctuality at work and at college are exemplary. Because the company ethos of respect, integrity and zero-harm is so well-established, apprentices exemplify the very best of British values. They know how to protect themselves from harm, and use the internet safely. They recognise the dangers associated with radicalisation and extremism and know very well what they need to do should problems arise.
- Apprentices work very safely and apply appropriate risk management to their practical work. They are fully conversant with the health and safety requirements. They are keenly aware of reporting procedures. Apprentices sit on steering groups and play an important role in providing feedback to leaders and managers on issues such as health and safety and self-assessment.
- The open and supportive culture sets high expectations for the welfare of apprentices. Through a company-wide focus on healthy lifestyles by, for example, using an 'eat well' guide as a tray insert in the canteen and having access to free fruit, apprentices recognise what they need to do to stay healthy. They have open access to occupational health, and to confidential, free and independent online advice, support and guidance that helps them prepare for unexpected events such as family crises, ill-health and managing money.
- Because Siemens has clear public service values, for example through their highly regarded and well used education website, apprentices understand their role as community champions. Many act as ambassadors to primary and secondary schools and promote the benefits of STEM to school pupils.

Outcomes for learners

are outstanding

- Siemens apprentices go through a rigorous selection process that identifies their skills, aptitude and capacity for learning very well. Most begin their engineering or manufacturing process apprenticeships with appropriate qualifications in English and mathematics. Because Siemens managers, training staff and apprentices have high expectations of achievement and progress, apprentices develop the technical knowledge and skills they need to operate as highly effective employees throughout the company.
- Apprentices develop and apply technical mathematics and computing skills extremely well. They make effective business presentations to critical audiences. Apprentices produce work of a very high standard that exemplifies their industry standard skills, knowledge and understanding.

- Almost all apprentices complete their apprenticeships to a very high standard. The proportion of apprentices who complete their qualifications on time increased substantially in the previous year, and has continued to increase this year. A large majority of apprentices now achieve their qualifications within the planned time. The increase is most noticeable for apprentices aged 16 to 18. Many gain additional qualifications that enhance their capabilities as engineers.
- The overwhelming majority of apprentices continue in employment with Siemens or partner companies at the end of their apprenticeships. The very small number who leave move on to university, further training or other employment. Apprentices demonstrate realistically high ambitions for their advancement; all have experience of leading teams and work very well as independent engineers and 'trouble-shooters' who are adept at problem-solving. More than half the general managers in the business units that apprentices work in were apprentices themselves.
- The proportion of female learners is increasing rapidly and is currently three times greater than in other engineering settings. All groups of learners achieve very well; there are no discernible differences in achievement.

Provider details

Type of provider	Employer provider
Age range of learners	16+
Approximate number of all learners over the previous full contract year	557
Principal/CEO	Toby Peyton-Jones
Website address	www.siemens.co.uk

Provider information at the time of the inspection

Main course or learning programme level	Level 1 or below		Level 2		Level 3		Level 4 and above	
	16-18	19+	16-18	19+	16-18	19+	16-18	19+
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Intermediate		Advanced		Higher			
	16-18	19+	16-18	19+	16-18	19+		
	2	3	325	169	21	30		
	16-19		19+		Total			
	N/A		N/A		N/A			
	N/A							
Number of traineeships								
Number of learners aged 14–16	N/A							
Funding received from	Skills Funding Agency (SFA)							
At the time of inspection the provider contracts with the following main subcontractors:	<div><div></div> Tyne Metropolitan College</div> <div><div></div> Warwickshire College</div> <div><div></div> Trafford College</div> <div><div></div> Lincoln College</div> <div><div></div> North Warwickshire and Hinckley College</div> <div><div></div> Furness College</div> <div><div></div> Birmingham Metropolitan College</div>							

Information about this inspection

Inspection team

Chris Jones, lead inspector	Her Majesty's Inspector
Andrea Machell	Her Majesty's Inspector
Ralph Brompton	Ofsted Inspector
Mohammed Feeaz	Ofsted Inspector
Ian Goodwin	Ofsted Inspector
Andrew Scanlan	Ofsted Inspector

The above team was assisted by the national apprenticeship contracts manager, as nominee. Inspectors took account of the provider's most recent self-assessment report and development plans, and the previous inspection report. Inspectors used group and individual interviews, telephone calls and online questionnaires to gather the views of students and employers; these views are reflected within the report. They observed learning sessions, assessments and progress reviews. The inspection took into account all relevant provision at the provider.

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