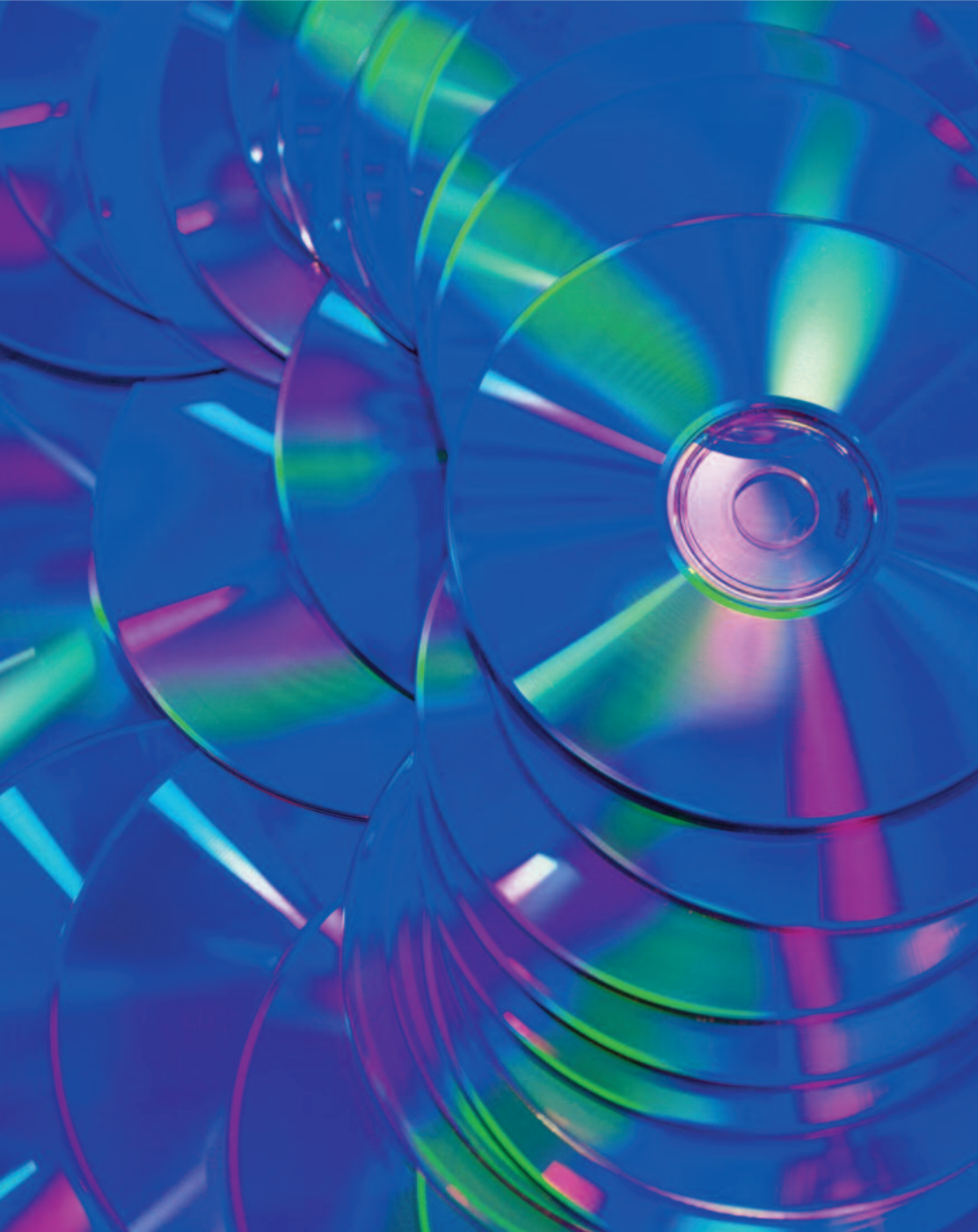


A skills report for the polymers industry

POLYMERS
INDUSTRY



**cogent**

*Skills for Science
Based Industries*

Foreword



This Skills Report for the polymers industry sets out how we are working with polymers employers to support workforce skills development – an ongoing process that takes account of a changing landscape and a sustainable future for all.

We are guided by employers: an employer-led Board directs our strategy; our Polymer Skills Strategy Council defines our programmes; we run extensive consultations on qualifications and we gather detailed Labour Market Information (LMI).

A significant piece of work has been to make sure that the qualifications on the new Qualifications and Credit and Framework (QCF) are far more relevant to employers and learners.

Our standard-setting remit has seen us continue to deliver a raft of Gold Standard role standards for industry. Where the industry carries out a range of courses around the same subjects, we've produced training standards, with the input of many subject experts.

We're also developing a higher level skills strategy which promotes innovation. Our new employer-led Foundation Degrees will play a critical part in driving up these skills.

The National Skills Academy Process Industries is taking our qualifications and standards and delivering them via the quality assured provision of training and development aimed at technical, associated professional, and management levels.

Thanks must go to all the employers and partners for their vital contribution to the skills agenda.

We look forward to continuing our work with them to bring young people in both through apprenticeships and from university; to upskill and re-skill the current workforce and to ensure the industry has the high level skills it needs.

Joanna Woolf,
CEO



Our objectives

Cogent is the Sector Skills Council (SSC) for the Chemicals, Pharmaceuticals, Nuclear, Oil and Gas, Petroleum and Polymer Industries.

Cogent's Mission is:

To meet the skill needs of the Cogent industries to allow them to compete successfully.

We are doing this through:

- Being the voice of employers on skills
- Designing qualifications
- Attracting young people into the Sector
- Understanding industry skills needs



Our strategic action plan

Cogent and the National Skills Academy Process Industries are together working to ensure a highly skilled workforce. Cogent is developing the standards and qualifications and the Skills Academy is transforming learning through its quality accredited provider networks around the UK.

The Polymer Skills Strategy Council provides strategic advice to the Directors on Cogent's main Board and its Executive. It provides a focus for working hand-in-hand with employers to develop skills solutions.

Cogent's remit is delivered through five "Big Tickets", each one of which has a focused programme of activity.

1

Cogent Industry Skills Standards and Qualifications

Cogent is developing a suite of employer-led qualifications that underpin its competency based Gold Standards. Take-up and completion of Level 3 Cogent Sector qualifications has seen an increase since Cogent's inception:

Cogent Sector S/NVQs	2005	2009	% increase
Level 2	1330	1495	12%
Level 3	275	595	116%

We have delivered

Cogent Industry Training Framework

The Cogent Industry Training Framework (CITF) provides a web-based database of qualifications and training and the associated standards right across the Cogent Sector. It provides the benchmark function for employers for skills gap analysis through the Skills Academy's Skills Passport.

www.cogent-prospectus.com

National Occupational Standards

Cogent continues to work closely with employers to develop high quality and useable National Occupational Standards (NOS) which are the building blocks for vocational qualifications.

Training Standards

We have worked with employers to develop standards for the benchmarking of training across the industry. The development of these important standards has taken place in consultation with many subject experts.

14-19 Diplomas

Cogent has continued to steer the development of the new Engineering Diploma and the Manufacturing and Product Design Diploma. Diplomas are a new qualification for 14-19 year olds which are designed to develop invaluable work related skills.

Higher Education (HE)

Foundation Degrees: Foundation Degrees are degree level qualifications which combine academic study with workplace learning.

Cogent's ground-breaking collaborative project Working Higher is developing a Framework for Foundation Degrees in Science and Engineering. It includes the FdSc Polymer Technology, to be delivered by London Metropolitan University.

Resource Efficiency

Cogent is currently working to develop a suite of flexible qualifications in Resource Efficiency. This builds on its recent project to develop NOS for Sustainable Business Practice.





We are working to

Agree

We are working with industry to agree the appropriateness of qualifications or common Industry Training Standards

Develop

We continue to develop a suite of vocational qualifications and training standards for the polymers industry aligned with Gold Standards and the Academy's Skills Passport.

Future Proof

Roll out the Resource Efficiency qualifications to help "future-proof" the Sectors' management of its environmental impact.

Ensure

We are working to ensure fit-for-purpose modules which can be offered on a 'pick and mix' basis, contextualised for employment within the polymers industry.

Build

We are building safety behavioural and attitudinal training requirements into the industry's qualifications.

Assess

We are developing a range of provision which leads to entry to the HE sector, including 14-19 Diplomas and Foundation Degrees. We are assessing employer requirements in relation to Honours Degrees through to post-Graduate education programmes.

2

Cogent Skills Benchmarking

Cogent is setting the standard for skills in the Sector and developing the tools to allow companies to assess their performance.

We have delivered

The Cogent Gold Standard

The Gold Standard is a national framework for Continuing Professional Development (CPD) setting out the skills required for world class performance in key job roles in the process industries. Each Gold Standard role sets out the competencies, qualifications and training standards that will provide a route to securing skills across four areas:

- Technical Competence
- Business Improvement
- Compliance
- Functional and Behavioural

Current Polymer Industry Gold Standard job roles

Process Setter / Operator	Level 2
Process Technician Level	Level 3
1st Line Supervisor Level	Level 3+

A full list of all the process industry Gold Standards can be found at www.cogent-ssc.com/Gold_Standard

An extract from Process Setter Operator Level 2 (Polymers)

Cogent GOLD STANDARD	The Gold Standard Job Role skills, knowledge and behaviours	Gold Standard Qualifications (Awards, Certificates & Diplomas) & Training Standards
Technical Competence	<ul style="list-style-type: none"> • start up a process • monitor and maintain a process • complete/shutdown a process • maintain product quality • prepare materials for processing • support the maintenance activities <p>the individual has the underpinning science and technology knowledge for the polymer sector & job role</p>	<p>L2 PAA\QSET Certificate in Operations and Technical Support in the Polymer Industries</p> <p>L2 City and Guilds Certificate in Process Technology</p>
Business Improvement	<ul style="list-style-type: none"> • apply measurement and charting techniques • use problem solving techniques • contribute to a structured improvement project 	L2 NVQ in Business Improvement Techniques
Compliance	<ul style="list-style-type: none"> • the reasons for and application of a variety of safety management systems • the implications and relevance of company policy, external legislation and regulation 	NEBOSH Award in Workplace Health & Safety
Functional & Behavioural	<ul style="list-style-type: none"> • basic skills in communications, numeracy and ICT • take responsibility for completing tasks and procedures • exercise autonomy and judgement subject to overall direction • develop co-operative relationships with others • plan work with others and review progress • take responsibility for supervising or guiding others where appropriate • responsibility for personal development • review progress towards targets 	<p>Skills for Life can be acquired through GCSE or Scottish/NI equivalents and Key/Functional skills programmes</p> <p>L2 ILM Award In Personal Development</p>

Skills Match

This new web tool is now available via the Cogent website. The Cogent Skills Match tool allows the user to check their skills against Cogent Gold Standards. There are two routes through the tool: the individual route where qualifications can be benchmarked against industry standard job roles and the employer route, where a company can check its competence profile against the industry standard and find further information about relevant qualifications and training standards.

www.cogent-skillsmatch.com

Competence Assurance

In a highly regulated industry the ability to demonstrate workforce competence for example, to the regulator, is critical. We have developed a Cogent sector-wide Competence Assurance web tool which provides a self-check on the competence assurance systems in place within a company and benchmarks these against other high-hazard companies.

Skills Passport

The Skills Academy has developed a Skills Passport which provides process industry employers and employees with a user-friendly, online record of their accredited and non-accredited training and qualifications, creating a full skills profile of the learner/s.

“Linecross believe that Apprenticeships provide a key part of our future success. Indeed, all types of polymer organisations need talented people and their success depends on the skills of team members. We’ve had great success with apprenticeships, with participants embarking upon a career path that could potentially lead to management level roles.”

Stuart Fry, Managing Director of Linecross, suppliers of engineered polymer solutions

We are working to

Establish

We are establishing the Gold Standard as the industry standard and reference point for world class skills.

Develop

With industry we will continue to develop the competencies for an agreed range of Gold Standards including technical management job roles.

Incorporate

We are incorporating sustainability and innovation into the Gold Standard framework.

3

Cogent Apprenticeships

Apprenticeships provide the vital supply of skilled employees for the future and we are working to ensure sufficient numbers of entrants, with the right skills to meet future needs. One means of ensuring an adequate supply of skilled personnel for the future is through community apprenticeship schemes. The assurance of local provision is critical whether through a provider or a provider network.

Cogent's work on apprenticeships is reflected in the significant increase in the take-up of sector apprenticeships. Between 2005 and 2009 there has been 48% increase in registrations on the Cogent apprenticeship framework and a 13% increase in registrations across all main apprenticeship frameworks used within the Cogent industries.

We have delivered

Apprenticeship Expansion Programme

We've engaged with employers and providers to pilot a ground-breaking Learning and Skills Council (now the Skills Funding Agency) match funded Apprenticeship Expansion Programme, which has seen 46 additional apprentices being taken on.

Energy Skills Foundation

Sixteen young people also embarked on the new Energy Skills Foundation Programme at Lowestoft College. This pre-apprentice course is the result of a three year £100k project led by Cogent, ECITB, Skills for Energy and Lowestoft College. The employer-led course is training young people in practical engineering skills and covers the different industries in the sector.

We are working to

Ensure

We are working to ensure that the Polymer Apprenticeship frameworks are meeting the needs of both large and small employers.

Source

We will source local provision to deliver the Apprenticeship including a polymer vocational qualification and a polymer technical certificate.

Assess

We will assess the need for and requirements of a Higher Apprenticeship to bridge the gap between Level 3 Advanced Apprentices and Graduate entry.

Develop

With the National Skills Academy Process Industries we will continue to develop Community Apprenticeship schemes.

Identify

We will identify opportunities to grow apprenticeship numbers in the Cogent sector through initiatives such as the Apprenticeship Expansion Programme or the Joint Investment Programme (JIP).

Evaluate

We will evaluate the opportunities arising from Group Training Associations (GTAs) and Apprenticeship Training Associations (ATAs).



Future Skills

4

Cogent's Future Skills research programme is providing the essential intelligence to inform future skills needs. Reliable Labour Market Intelligence is necessary to develop valued education, training or recruitment which is based on knowledge of the current and future requirements of the industry.

We have delivered

Cogent Skills Oracle

The Cogent Skills Oracle is a unique benchmarking tool. It is using a barometer sample of 200 companies in the Cogent Sector, providing comprehensive coverage across all the Cogent industries and all sizes of organisations.

Headline Findings

- Annual average company turnover in employment is approximately 31%.
- 43% of polymer employers report commercial and marketing vacancies are 'hard to fill'.
- The industry reports high levels of redundancies (61%), possibly due to the decline in the supply of components to the automotive/ construction industries.
- The polymer industry tends to employ those qualified to Level 1 and Level 2.
- However, the majority of employers place importance on the supply of Apprentices and Graduates.
- Employers expected the demand for both leadership and professional skills to increase.
- Annual training budgets average £560 per employee.
- Polymers employers were satisfied with the coverage of qualifications across the sector.
- Health, Safety and Environment (HSE) was the most frequently reported training undertaken.
- 90% of Polymer employers use 'Private Training' providers; 85% use 'FE' providers; and 40% use 'HE' providers.
- For private training providers, satisfaction levels tended to be extremely high in all areas.
- Between 50% and 65% of employers invest in 'competence based' and 'technical' training, with 40% of employers investing in 'basic skills'.
- 58% of polymer employers reported skills gaps among existing employees had 'some impact'.
- 68% of polymer employers report that technical skills needs have increased in the 12 months preceding the survey.
- Encouraging young people into the sector, securing funding and improving access to training courses, are viewed by polymer employers as the highest priorities for a Sector Skills Council.

We are working to

Undertake

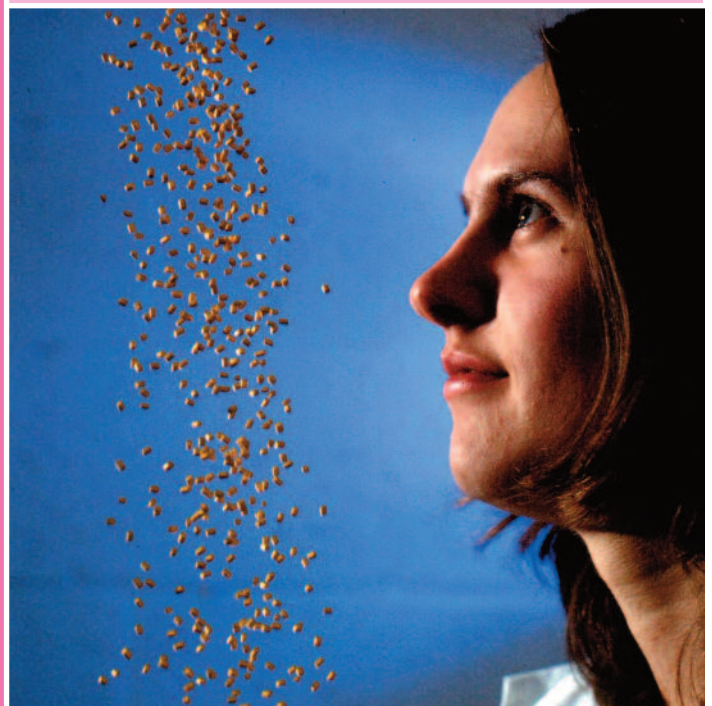
We will continue to undertake LMI against a range of scenarios reflecting current and future operations.

Analyse

We will analyse our LMI and ensure that this is fed back into the Cogent Polymers Industry Strategic Action Plan so that the research informs our actions.

Increase

We will seek to increase the number of polymers employers taking part in Skills Oracle, who will each get their own bespoke company report with individual company benchmarking.



5

Cogent Career Pathways

We have delivered

Cogent Career Pathways

Our flagship careers resource, www.cogent-careers.com is the established resource for careers in the Sector. The website provides detailed information, advice and guidance on career progression, jobs, training and salaries in the polymers industry.

Cogent focuses at a high level to ensure that the Cogent footprint, including the polymers industry, gets visibility within the national and regional Science, Technology, Environment and Maths (STEM) agendas, rather than duplicating initiatives ongoing elsewhere.

The Cogent career pathways site is used by many organisations with a jobs and careers guidance remit, and a recent survey showed that the resource is used by a third of all careers advisors.



We are working to

Develop

We are working with employers to develop Gold Standard roles and use these roles as the core of the polymers career pathway.

Update

We will annually update Career Pathways information, to include the role profile details developed within the Gold Standards, job locations, salary information and real life case studies.

Invite

We will invite employers to place company profiles, with a view to linking to vacancies

Monitor

We will monitor the website use by industry, schools and other stakeholders and evaluate its value with the customer base on a regular basis.

Conduct

We will conduct Labour Market Intelligence around STEM issues, including the regular surveys of students, teachers and career advisors to ensure that Career Pathways remains current.

The National Skills Academy Process Industries

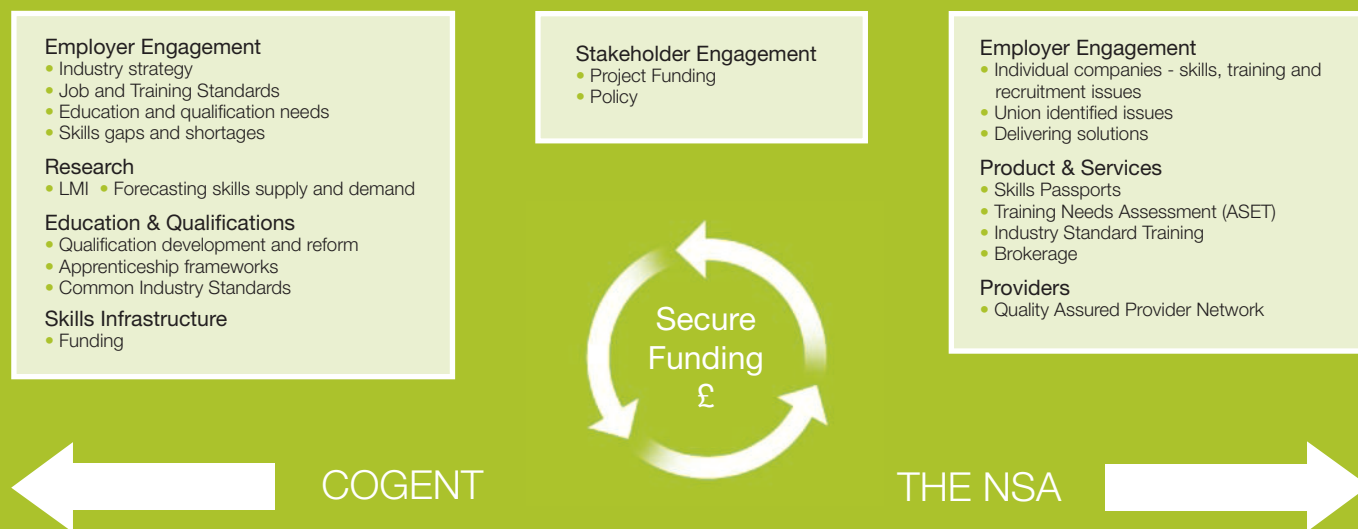
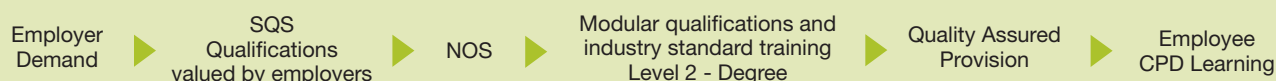
The Skills Academy is transforming vocational training in the process industries.

It is giving employers a unique opportunity to shape training as well delivering products that work right across the Sector, ensuring transferable 21st Century skills.

It has developed a bespoke model that reflects the needs of the employers in the sector. Underpinning all of this is a network of quality-assured providers who provide training and qualifications based on Cogent standards.

As this value chain shows, Cogent is developing strategic skills action plans, undertaking research, developing qualifications, setting standards and representing the employer voice. At the other side National Skills Academies undertake regional employer engagement and deliver skills solutions to meet their needs.

Value Chain for Cogent and Academies



The Skills Academy and the chemicals industry

The Skills Academy is supporting the polymers industry by consulting with the industry and designing and agreeing products and services which are cost-effective and add value to their businesses.

Skills Passport

A key Skills Academy deliverable is its Skills Passport; this provides a transferable record of safety, technical and all other training based on the Gold Standard framework. Credit for in-house training and new training is captured on the Skills Passport providing a unique record for the individual.

ASET (Assessment System for Employer Training)

Companies perform significant amounts of in-house training for which employees and employers currently receive no recognition. The Skills Academy offers an assessment scheme for in-house training, ASET, that accredits company training programmes to the Gold Standard. Through this process employees gain recognition for the training they have undertaken. Employers are able to identify skills gaps and through the Skills Academy find suitable training to bridge the gaps.

New industries, new opportunities

With more traditional manufacturing and assembly operations continuing to move to lower cost in the Far East and Central Europe, the key to the future economic success of the process industries centres around skills and innovation. The Skills Academy is focusing closely on biotechnology and composites. It is actively involved in assessing the type of jobs arising within the bio and composites business environment and crucial training and skills needs associated with these. In addition, Cogent and the Skills Academy are responding to an increasing number of enquiries from around the world, from global process industry enterprises seeking to base their workforce competence strategies on the highly respected Gold Standard.

Polymer Skills Strategy Council

Employers and stakeholders play a key role in our delivery, with the PSSC guiding our strategy and reviewing our progress.

- Department for Business, Innovation and Skills (BIS)
- British Plastics Federation
- British Polythene Industries PLC
- British Rubber & Polyurethane Products Association
- British Sign & Graphics Association
- Clarehill Plastics
- Composites UK
- Gurit (UK) Ltd
- Hi-Tech Mouldings Ltd
- ITS-Plastics Ltd
- Linecross Ltd
- Moorland Composites Ltd
- National Skills Academy Process Industries
- PAA/VQ-SET
- Packaging and Films Association
- PMMDA
- Richard Donnell
- Rosti Technical Plastics
- RPC Containers Ltd
- Scottish Plastics & Rubber Association
- SIA Abrafoam Ltd
- Telford Extrusions
- Worshipful Company of Horners

Cogent is also supported by:

Brian McCann - Clarehill Plastics Limited
Cogent Board Member

Chris Horton - LINPAC Packaging
Cogent Board Member

Bill Erskine – Skills Development Director and
Polymers Industry Lead Contact, Cogent SSC
bill.erskine@cogent-ssc.com

Tony Pringle - Skills Development Director and
Composites Industry Lead, Cogent SSC
tony.pringle@cogent-ssc.com

Key partners of Cogent and the Skills Academy include:

With a number of our partners, collaborative working arrangements in the form of a Memorandum of Understanding (MOU) have been agreed. We also work closely with other SSCs. For example Semta and Cogent are in a strategic partnership to improve support to employers in their sectors by collaborating on common areas of research, on science and technology skills and qualification development.

The British Plastics Federation: The British Plastics Federation (BPF) is the leading trade association for the UK Plastics Industry, with over 400 members and 1200 affiliated members. Encompassing the whole plastics supply chain including raw material suppliers, processors, machinery suppliers and recyclers. BPF membership covers over 75% of the plastics industry by turnover.

Composites UK Limited: Composites UK Limited is the Representative Body of the UK Composites Industry. The aim of Composites UK is to promote the UK composites industry in every manner so that it continues to grow and to compete in the ever more competitive world of global composites production. Its mission statement is 'to promote the use of composite materials to the widest market spectrum'.

The Worshipful Company of Horners: Dating from 1284 placing it among the earliest foundations, as the Guild of Horners. In 1943 the Company became associated with the plastics industry, and promotes the interest and development of plastics, the plastics industry, and scientific education. They are the principle sponsors of the Polymer Study Tours, courses designed to assist science and technology teachers to develop their knowledge of plastics.

IOM3: Incorporated by Royal Charter, the institute of Materials, Minerals and Mining is a learned and professional body for people working in the materials, minerals and mining communities, with over 18,000 members drawn from a wide range of disciplines.

Chemicals Northwest: Cogent is ensuring that its Sector Skills Agreement, Gold Standard, Skills Academies and Apprenticeship Programmes are firmly on the Chemicals Northwest agenda and is engaging with regional employers to encourage engagement.

NEPIC (North East Process Industries Cluster): NEPIC comprises a cluster of around 250 employers from base, bulk, speciality, bio, polymers and pharmaceuticals manufacturers. NEPIC has identified a number of key priorities which dovetail with Cogent's skills strategy.

Contact Us

Cogent enquiries:

T: 01925 515 200

E: info@cogent-ssc.com

www.cogent-ssc.com

Cogent SSC, Unit 5, Mandarin Court
Warrington WA1 1GG

For information on undertaking a Cogent qualification or to find out more about training contact:

National Skills Academy Process Industries

T: 01325 740900

E : enquiries@process.nsacademy.co.uk

www.process.nsacademy.co.uk

