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Research  
Report

# Solent Civil Engineering Collaboration

A magenta circular graphic containing the text 'KEY SELLING POINT' in white, uppercase letters. The graphic is positioned on the left side of the page, overlapping the wooden building image.

KEY  
SELLING  
POINT

Study prepared by FE Sussex Ltd and FE Consulting (Sussex) Ltd from a commission by CITB.

BACK UP  
INFORMATION



The study should not be regarded as a policy statement by CITB, but should be read in conjunction with the accompanying Summary Paper.

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# Solent Civil Engineering Collaboration

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## Introduction and objectives of the project

The need for this project was identified by the Solent Groundworks & Civil Engineering Employers Group which meets on a monthly basis at Fareham College. This is a proactive group of approximately 20 employers whose agenda is to attract, develop and retain business in their specialist areas of construction. Part of this agenda is growing the workforce of tomorrow.

The group recognised problems in recruiting and retaining apprentices in civil engineering groundworks in the Solent area was affecting their ability to deploy sufficient skilled labour on-site and to engage in long term work-force planning. Research into the reasons for recruitment difficulties identified various contributory causes including poor retention of apprentices, a lack of assessors and the need to ensure apprentices had every opportunity for on-site assessment at appropriate moments in their scheduled work.

To address these reasons the project was designed with the primary objective of identifying and training appropriate on-site employees/practitioners to qualify as assessors thereby increasing the infrastructure and capacity to deliver skilled groundworkers in the South/Solent area. The presence of these assessors on-site, it was reasoned, would enable apprentices to use daily work opportunities for assessment purposes with minimal disruption to site routine and schedule.

It was felt this would assist in increasing the retention of apprentices in the industry and the commitment to their employer of those trained as assessors. Secondary, softer, objectives were also recognised as project benefits.

The project objectives were separated into primary and secondary aims.

## Overall project aims

### Primary:

To increase the infrastructure and capacity to deliver skilled groundworkers in the South/Solent area.

Disaggregated into the following targets:

- To attract the participation of at least 11 employers to participate in the training of assessors
- To upskill/multi-skill 15 existing employees working across the employers to qualify as assessors and to prepare them to act as trainers and mentors and achieve the Level 3 Certificate in Assessing Vocational Achievement
- To engage 35 candidates on NVQ2 Ground-working qualifications
- To engage 5 employees on level 3 qualifications (Certificate in Learning and Development)
- To smooth the engagement of 80 new apprentices per year when employed by the participating employers and assessed by their in-company assessors.

### Secondary:

Increased awareness of career opportunities in ground working and greater industry awareness of how multi-skilling can increase productivity in construction.

Disaggregated into the following targets:

- To improve the image and retention of labour within the construction industry
- To improve morale, job satisfaction and career progression for employees
- To improve health and safety awareness.

### **Duration of research**

Independent research activities for the project were conducted over a ten month period between March 2019 and December 2019.

### **The researcher**

Research was conducted by FE Sussex Ltd (the consortia company of Sussex colleges) and FE Consulting (Sussex) Ltd and led by Dr Tim Strickland.

### **Object of the research**

Research objectives were “to gain understanding of the project and its effectiveness from two aspects: that of the site supervisor training to be an assessor and that of the employers actively supporting the scheme”. In some cases employers also chose to be trained as an assessor and this hybrid participation was also researched.

### **The research methodology**

Research comprised both quantitative and qualitative methods. The former was devised to gather data to support a set of statistical metrics to provide an analysis of project baseline data using the format set by the World Bank Group (Jones and Michell, 2014). The baseline data is detailed in appendix two of this report.

Qualitative research methodology centred on the use of guided questions within one to one interviews and was undertaken with employers and those employees training to be assessors. Representatives of 60% of participating employers were chosen at random to contribute to this research. A copy of the guided questions used are attached to this report as appendix three.

57% of the 14 employees who qualified as assessors were interviewed using the guided questions detailed in appendix four of this report.

A totally flexible approach was adopted with some research taking place outside normal working hours, some on-site and some in the local college. Two employees who had successfully trained as employees were interviewed by ‘phone rather than face to face.

### **Barriers to research**

The only barrier to completion of research identified was the availability of those to be interviewed and the potential ‘skewing of evidence due to external influences’ (Greatorex and Shannon, 2003, How Can NVQ assessors’ judgements be standardised? Cambridge, Cambridge Local Exams Syndicate, Cambridge Assessment Organisation Page 3). Research interviews were therefore conducted in private and the offer made of non-attributable recording of evidence.

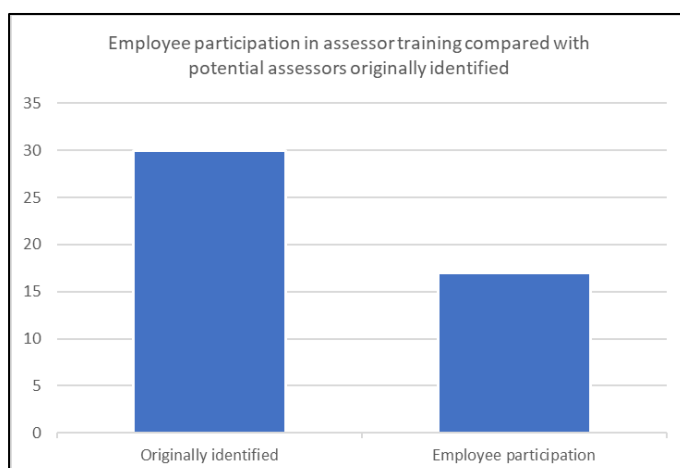
## The Research Findings

### Research evidence and findings based on quantitative data

Summary of project performance against baseline data:

Baseline performance indicator	Project performance data
Number of employees starting assessor training	Original target: 30 Reprofiled target: 17 Number of starts of original target: 56% % of reprofiled target starting: 100%
Retention rate of reprofiled starts	100%
Number of employees successfully completing training and qualifying as an assessor	Number of successful completions: 14 Success rate of reprofiled target: 82%
Number of NVQ Level 2 General Construction Operations achieved	Target registration: 35 Number successfully achieved: 28 Success rate: 80%
Level 3 Certificate in Learning and Development	Target registration: 5 Number successfully achieved: 3 Achievement rate: 60% Number still in training: 2
Categorisation of reasons for drop out	Of the reference sample of 60% of participants: Time Commitment: 100% Employee domestic circumstances: 26% Change of employer: 0% Change of employer commitment: 0%

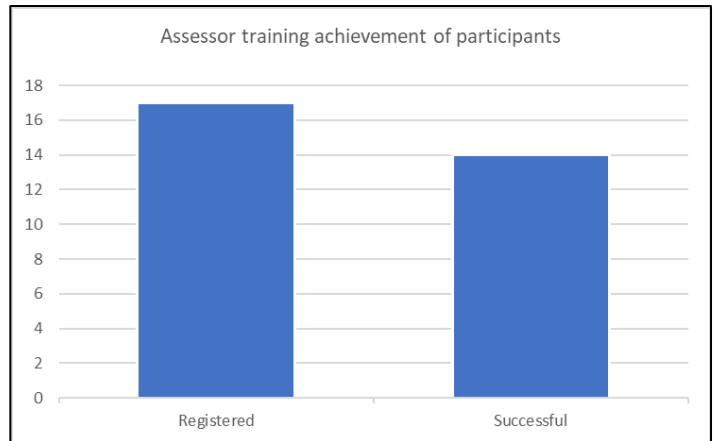
### Employee Participation



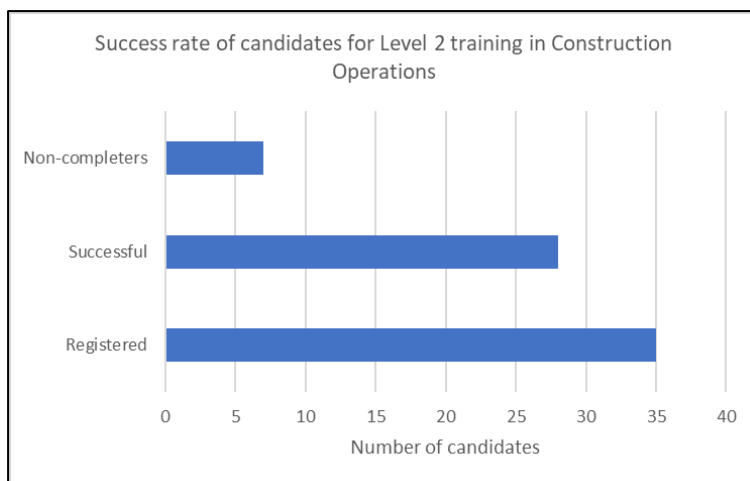
Pre-project research work identified up to 30 potential employees who would want to train as an assessor. As publicity for end point assessment and its operation became understood by potential participants, interest in the project was eroded and after some months the number of participants wanting to start training finalised at 17.

### Success Rate

The project was successful in training employees as assessors. 83% of those commencing assessor training successfully completed their course and are now assessing apprentices on site.



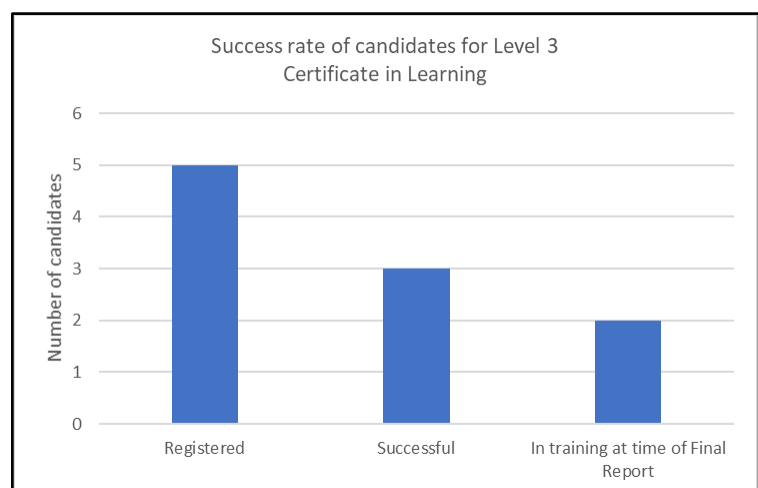
### Level 2 General Construction Operations VQ success rate



80% of those registered for NVQ Level 2 General Construction Operations successfully completed their training. All non-completers (7 in total) left the training programme prior to completion of the qualification citing disillusionment with the industry.

### Level 3 Certificate in Learning success rate

Of the five participants who studied for a Level 3 Certificate in Learning three successfully completed, the other two remained in training at the project end date and were on target to successfully complete within eight weeks of the project end date.



### Value for money and return on investment

A simple calculation of CITB investment against successful number of successful participants across all elements of the training programme shows

Value for money      Total revised CITB investment = £105,920  
                                  CITB investment per head:  
                                  45 completions across three qualifications = £2,345

The revised investment figure of £105,920 compares with the original budgeted figure of £120,750 across all qualifications.

Less tangible but equally important are the softer benefits which have been recorded during research conversations with employers and employees in training. These match the secondary (softer) benefits targets originally set including awareness of the construction industry, increased loyalty to employer, improvement of site work. Additionally, the target for recruitment and retention of apprentices (Level 2 General Construction Operations) was met.

### Payments per qualification

Qualification outcome	Number registered	Number completed	CITB payment per registration	CITB payment per completion	Total CITB direct investment
L3 Assessor award	17	14	£800	£200	£16,400
NVQ 2 award	35	28	£360	£90	£15,120
L3 Certificate in Learning and Development	5	3	£800	£200	£4,600

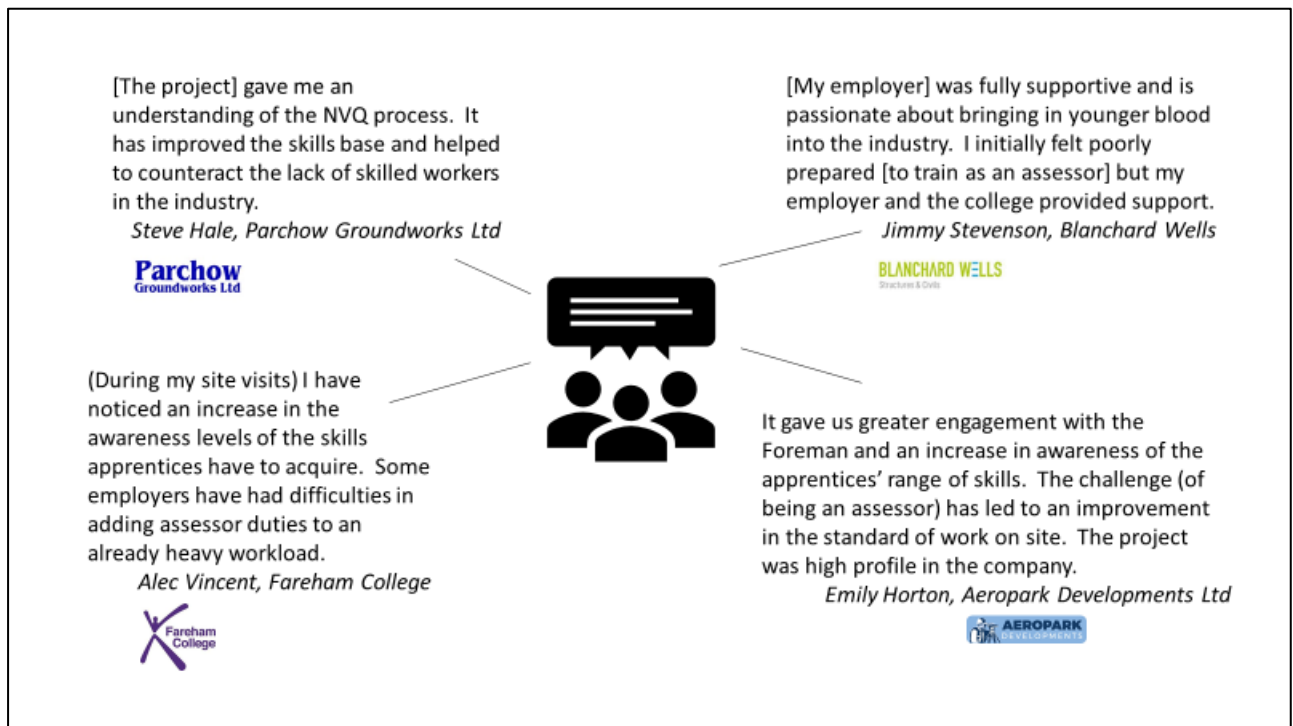
### Research evidence based on qualitative evidence

#### Outcomes of research conducted with employers and the project manager

The project was employer devised. It was therefore somewhat predictable that the level of commitment to the project by employers was found to be high with one exception. Common points of agreement regarding satisfaction with project outcomes included growing the workforce of tomorrow, improving understanding of apprentices and raising standards of site work. Some employers had a firm objective of reducing apprentice attrition rates. All employers cited the high level of support provided by Fareham College as being essential to the participation of their companies.



## Employer feedback and response to the project



There was one piece of negative employer feedback. This centred on a wish to participate in the project for the development of apprenticeship training rather than assessor training.

The focus of the project, therefore, did not meet the needs of the employer although they had supported their staff throughout the process of becoming an assessor.

Anecdotal evidence given during interview points to achievement of the project's secondary objectives of improving the attrition rate of apprentices and the image of construction as a whole.

### Outcomes of research conducted with employees training to become assessors

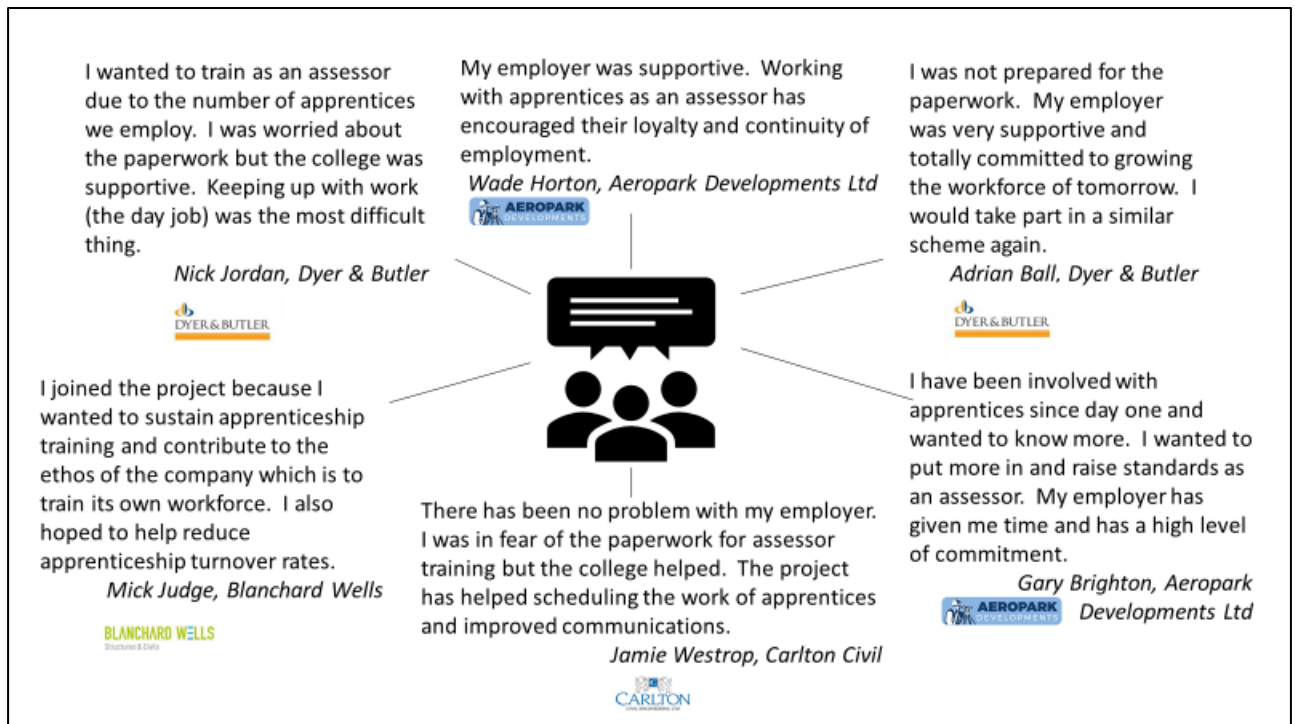
Of the employees interviewed 100% were positive about the project. The most common feedback to questions regarding their motives for participation centred on growing the workforce of tomorrow while simultaneously raising the standard of work completed on site. In addition, employees made reference to the high level of support from Fareham College. Their feedback therefore duplicated the comments of their employers. Some interviewees also made reference to the easing of their workload as they had developed a higher level of confidence in the abilities and standards attained by apprentices on tasks they had directly assessed.

No employees failed to complete their training as an assessor showing the initial pre-starting advice and guidance had been accurate and timely.

Two employers also trained as assessors, their motives being to understand the training process and to be able to ensure apprentices' training was a holistic experience.

The following summary of comments from employees who trained as assessors substantiates these points:

### Feedback from employee participants



Please note: The views expressed by research participants are their own and do not necessarily represent those of their employers.

### Challenges to the project identified during qualitative research

The following challenges to the success of the project were identified during interviews with the project manager, with employers and with participants:

- The advent of end point assessment was identified by the majority of employees as negating the need for on-site assessment in some forms. They also reported end point assessment had acted as a disincentive for others to join the scheme.
- The project started slowly due to the lack of appointment of a project manager resulting in an initial lack of guidance and task structure.
- The lead employer's representative required development support to become au fait with CITB requirements.
- Recruitment onto the project fell below the original forecast. Reasons for this have been attributed to the introduction of end point assessment and the projected cessation of current assessment practices.
- The project manager left prior to the end of his anticipated contract time leading to a lack of dedicated management which manifested in a slower rate of assessment of participants and difficulty in producing timely statistics for quarterly reports.
- All employees referred to the amount of paperwork they were expected to complete and the negative perceptions this invoked in them regarding the workload of an assessor. (In some cases this was mitigated by positive comments made regarding the support provided by the project manager and Fareham College).
- Clarity is required regarding the issuing and acceptance of trade cards and relevant qualifications.

## Conclusions

Research confirms the success of the project from the aspect of employer and participating employees. (Re-defined) output targets were achieved and 15 assessors were trained. The majority of other targets, particularly those concerned with the introduction and retention of apprentices were also achieved.

Efficiency of project delivery was prejudiced by the late appointment and early departure of a project manager. This resulted in a gap in behind the scenes administration which delayed (but did not stop) the successful completion of some participants.

Throughout the duration of the project the move towards end point assessment became more widely understood. This reduced the recruitment of potential project participants willing to train as assessors.

The high level of employer involvement in the design of the project and the commitment of the employer consortia to its success acts as a model of what consortia cooperation in supporting training can achieve.

Some employers and employees participating in the project were of the opinion that it had assisted in improving standards of on-site work.

## References

<https://www.fenews.co.uk/fevoices/11901-the-changing-role-of-the-assessor-in-apprenticeships>

<https://www.cambridgeassessment.org.uk/> - CambridgeAssessment.org.uk Standardising the assessment judgement of NVQ assessors. Greatorex and Shannon. Cambridge Local Exams Syndicate 2003

## List of appendices

- Appendix one – Statistical data collection – baseline definitions
- Appendix two - End of project baseline data, summary of data recorded
- Appendix three – Guided interview recording sheet (employers)
- Appendix four – Guided interview recording sheet (assessors)
- Appendix five – Participating employers in the Solent Civil Engineering Employers' Collaboration Group

## Appendix one – Statistical data collection – baseline definitions

<b>Project name</b>	Solent Civil Engineering Collaboration			
<b>CITB Reference</b>	BW-1701			
<b>Products specification</b>	Research Report Scoping Document 12.04.19			
<b>What metrics will you use, where will you take them from and how frequently?</b>				
The metrics we intend to use within the research report to evaluate the success of this project are:				
	Metric	Performance indicators	Compiled via	Frequency of measurement
1	Number of employees against target requiring upskilling prior to being able to qualify as an assessor	% of target employer involvement	Metrics will be gathered by dialogue with training organisation and employers	All metrics will be compiled on a quarterly basis
2	Number of employees successfully completing upskilling to level 4	% of those who start training		
3	Number of employees starting assessor training	% of project target number of starts		
4	Number of employees not retained in training to be an assessor	The % attrition rate when compared with number of starts figure		
5	Number of employees successfully completing training and qualifying as an assessor	The number of employees qualifying as an assessor expressed as a percentage of the number of employees starting assessor training		
6	Categorisation of reasons for drop out	To be compiled during research but likely to divide into categorises such as: <ul style="list-style-type: none"> <li>• Time commitment</li> <li>• Employee domestic circumstances</li> <li>• Change of employment</li> <li>• Change of employer commitment</li> </ul>		
7	Value for money	The cost of each successfully trained successor and ROI	Budget and employer feedback	End of training programme
8	The difference it has made to employers recruiting, training and retaining a competent and qualified workforce and assisting with the profitability of their business	Quantitative and qualitative	Individual feedback together with employer survey to establish both quantitative and qualitative data	
<b>How will you define your baseline?</b>				
The baseline report will be compiled using the format set by the World Bank Group. (Jones and Michell, 2014). The purpose of the report will be to present the main findings and change of metrics of the research in a descriptive and digestible format for consumption by audiences both within and external to the construction industry.				
Baseline data on the number of trained assessors within each of the participating employers will be researched and used as the primary comparative data when considering improvement in business				

productivity as a result of the successful completion of the project. This 'before and after' activity (United Nations Entity for gender equality and empowerment of women, 2018) will measure change over time in the activity location alone. The use of experimental control which 'compares change in the activity location to change in a similar location' will be investigated as a secondary baseline.

**How will you measure any impact upon your baseline?**

The impact on business will be measured using the metrics outlined in the table above and supported by qualitative data compiled from field visits to employers, employees and the provider of off the job training. Where appropriate comparisons will be made with current research to enable measurement of change.

**What impact do you anticipate?**

The primary anticipated benefits of this project are:

- Multiskilling of staff
- Increased retention of workforce by employer
- Improved continuity of business through deployment of qualified staff
- Improved on-site availability of technical expertise
- Improved morale, job satisfaction and career progression for employees
- Improved on-site health and safety record

The challenges and barriers which are anticipated during this research are:

- Time commitment required causes drop out of employees from training and prevents employers from participating in evaluation activities
- Reluctance of employees to cease working on-site to contribute to research report
- Lack of baseline data from similar projects with which to conduct baseline comparisons

Compiled by

Tim Strickland, 12.04.19

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## Appendix 2 – End of project, baseline data – summary of data recorded

<b>Project name</b>	Solent Civil Engineering Collaboration				
<b>CITB Reference</b>	BW-1701				
<b>Products specification</b>	Research Report Scoping Document 12.04.19				
<b>Summary of research data gathering</b>					
<b>What metrics will you use, where will you take them from and how frequently?</b>					
The metrics we intend to use within the research report to evaluate the success of this project are:					
	Metric	Performance indicators	Compiled via	End of project metric	Frequency of measurement
1	Number of employees against target requiring upskilling prior to being able to qualify as an assessor	% of target employer involvement	Metrics will be gathered by dialogue with training organisation and employers	<b>Number of employers involved in devising scheme: 15</b> <b>Number of participating employers: 9</b>	All metrics will be compiled on a quarterly basis
2	Number of employees successfully completing upskilling to level 4	% of those who start training		<b>Started: 15</b> <b>Successfully completed: 15</b> <b>100%</b>	
3	Number of employees starting assessor training	% of project target number of starts		<b>Original target: 35</b> <b>Reprofiled to 15</b>  <b>% of original target: 43%</b>  <b>% of reprofiled target: 100%</b>	
4	Number of employees not retained in training to be an assessor	The % attrition rate when compared with number of starts figure		<b>All 15 retained.</b> <b>Attrition rate = 0%</b>	
5	Number of employees successfully completing training and qualifying as an assessor	The number of employees qualifying as an assessor expressed as a percentage of the number of employees starting assessor training		<b>15 started and successfully completed. Success rate: 100%</b>	
6	Categorisation of reasons for drop out	To be compiled during research but likely to divide into categories such as: <ul style="list-style-type: none"> <li>• Time commitment</li> <li>• Employee domestic circumstances</li> <li>• Change of employment</li> <li>• Change of employer commitment</li> </ul>		<b>Of the reference sample of 60% of participants:</b>  <b>Time Commitment: 100%</b> <b>Employee domestic circumstances: 26%</b> <b>Change of employer: 0%</b>	

				Change of employer commitment: )%	
7	Value for money	The cost of each successfully trained successor and ROI	Budget and employer feedback		End of training programme
8	The difference it has made to employers recruiting, training and retaining a competent and qualified workforce and assisting with the profitability of their business	Quantitative and qualitative	Individual feedback together with employer survey to establish both quantitative and qualitative data		

## Appendix three – Guided interview recording sheet (employers)

Research questions for <b>employers</b> supporting the programme	
<p>What benefits did you anticipate encouraging your employees to participate would bring?</p> <p>How many employees have you entered for the scheme?</p>	
<p>What benefits has participation in the scheme brought you as an employer?</p>	<p>Eg multiskilling, retention of employee; improvement in quality of building activities; Improved on-site availability of technical expertise; improved morale, job satisfaction and career progression for employees; Improved on-site health and safety record</p>
<p>What have been the difficulties regarding participation in the scheme?</p>	
<p>Have you noticed any improvement in employee morale/commitment/work ethic as a result of participation?</p>	
<p>Would you repeat the training with other employees?</p>	
<p>Would you recommend the scheme to another employer?</p>	
<p>Was it difficult releasing employees to participate and did you have worries it would affect their work turnaround?</p>	
<p>Have there been any developments of multi-skilling as a result of the project?</p>	
<p>Other comments</p>	



## Appendix four – Guided interview recording sheet (assessors)

Project name	Solent Civil Engineering Collaboration
CITB Reference	BW-1701.
<b>Recording of qualitative information and feedback</b>	
Name of candidate or employer	
Role	
Date of interview	
Research questions for <b>participants</b> on the programme	
How long have you been on the assessor training programme?	
Why did you want to start the training?	
How well prepared do you consider you were to start the training programme?	
How supportive has your employer been regarding your participation?	
What has come as a surprise within the assessor programme?	
How has the college supported you during the training?	

## Appendix 5 - Participating employers in the Solent Civil Engineering Collaboration employers' group

- Blanchard Wells Ltd., Soberton, Southampton <https://blanchardwells.co.uk/>
- Knights Brown, Ringwood Hampshire <https://www.knightsbrown.co.uk>
- Carlton Civil Engineering Ltd., Stockbridge <https://www.carltoncivil.co.uk>
- Gracelands Ltd., Southampton <https://gracelandsltd.com/>
- Blaze Construction Ltd., Eastleigh <http://www.blazecon.co.uk/>
- John Reilly Civil Engineering Ltd., Southampton <https://www.johnreilly.co.uk/>
- Dyer & Butler Ltd., Southampton <https://www.dyerandbutler.co.uk>
- R & W Civil Engineering Ltd., Southampton <https://www.rwcivilengineering.co.uk>
- Aeropark Developments Ltd., Southampton <http://www.aeroparkltd.co.uk/>
- Baram Lfd., Bishops Waltham, Southampton <https://www.baram.cc>
- D. R. Groundworks Ltd., Lower Upham, Southampton <http://www.drgroundworks.co.uk/>
- Farncombe Construction Ltd., Farnham <https://farncombeconstruction.co.uk/>
- Maebill Builders & Groundworks Ltd., Rowlands Castle <https://maebillbuilders.co.uk/>
- Mildren Construction Ltd., Christchurch, Hampshire <https://www.mildrenconstruction.co.uk>
- Parchow Groundworks Ltd., Waterlooville [www.parchowgroundworkshampshire.co.uk](http://www.parchowgroundworkshampshire.co.uk)

Study prepared by FE Sussex Ltd and FE Consulting (Sussex) Ltd from a commission by CITB.



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