

Pershore  
College

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2018



# Land-based Engineering

## Apprenticeship Development

Presented by:  
David Kirschner  
Independent Consultant

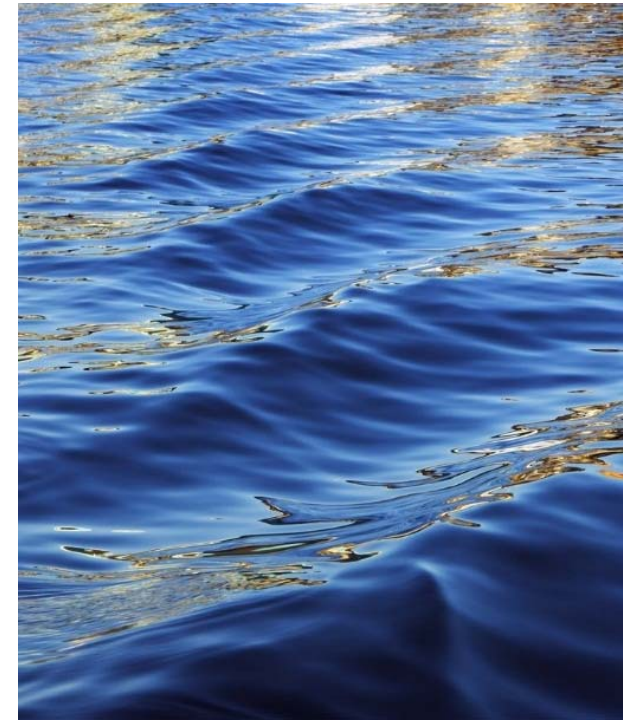


LE-TEC Ltd



British Agricultural  
and Garden Machinery  
Association

a division of bira



# Introduction

David Kirschner

Speaking to you on behalf of

LE-TEC Ltd

The Land-based Engineering -Training & Education Committee

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# Introduction

## Who is David Kirschner?

- 52 years of industry experience
- Born and raised on a farm
- Started in this industry as an apprentice
- Area service technician
- Service manager and dealership director
- Technical Director of premium tractor importing company
- UK After-Sales Manager for a multi national tractor manufacturer
- Independent Consultant to the Land-based Engineering industry
- Author of the LBE apprenticeships

## What does he know?

- Nothing happens unless we make it happen!
- No company or person can address the industry challenges alone
- For apprenticeships to be a success young people and employers with the right attitude are required
- That it is essential for training providers and employers to work closer together to achieve success
- Logic and government policy don't go hand in hand.
- That we don't have to accept the above point
- That the Land-based Engineering sector will always engineer solutions.

# The Industry Challenges

- Engineering in the UK is facing a recruitment crisis!
- Engineering UK predicts that **203,000** people with Level 3 and above engineering skills will be required year on year until 2024.
- That equates to **1.2 million** engineers by 2024
- Our industry employs approx **30,000** people and its miniscule compared to other engineering sectors!
- All engineering sectors are chasing the same apprentices that we desperately need.
- There are just not enough candidates to meet the demand!
- Land-based Engineering and Plant & Construction touches everybody's lives in some way. The food we eat! The sports we follow! The water we drink! The country's infra structure and all those tractors that hold us up on the road.
- But still young people have no idea what our industry does or the career opportunities that it offers!

# So What Are You Going to do about it?

1. Nothing! Ignore that the problem exists



2. Recognise the problem and hope it goes away



3. Seize the opportunity to start working together on an industry solution?



## What We all need to Do

- Increase the awareness and perception of the Land-based Engineering industry.
- Promote Land-based Engineering careers and apprenticeships as a worthy alternative to a university education
- Ensure our industry apprenticeships are delivered to the highest standards.

# Understanding the Challenges

- The country's population is migrating to urban living
- The number of farms has decreased
- The number of people employed in the countryside has decreased
- Potentially there are 7 generations who have become relatively disconnected from the countryside
- The visibility and awareness of our industry is at an all time low

Year	Countryside	Urban
1851	50%	50%
1891	28%	72%
2018	18%	82%

## A Little Insight

- A LEAF survey of adults reveals;
  - 26% did not know that milk comes from a cow!
  - 23% did not know that bacon comes from pigs!
  - 22% did not know that eggs came from chickens!
  - The British Nutrition Foundation surveyed 27,500 children revealing approx. 33% thought;
  - Cheese came from plants
  - Tomatoes grow underground
  - Fish fingers are made of chicken.
- 
- What chance is there that school leavers know about Land-based Engineering and its career opportunities?

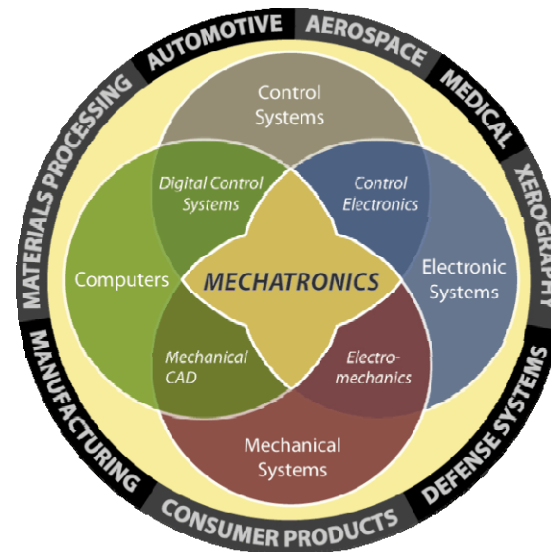


# Why Land-based Engineering Needs to Act Now

- The diverse blend of knowledge and skills required by Land-based Engineers is not readily available in the marketplace!
- The Technology in Land-based Engineering is developing exponentially but our products still can't repair themselves!
- A new breed of techno savvy specialists is required to compliment our existing technicians .
- Maintaining provision of service support is essential to the economy, customers and industry alike.

# The Scope of The Land-based Engineer's Knowledge

The industry challenge; To develop tomorrows technicians at the same speed as the product



Other manufacturers products are available!

So where do the  
future Land-based  
Engineers come  
from?



As an Industry we have to grow our own replacement workforce

- Apprenticeships have been around since the 14<sup>th</sup> century traditionally producing the finest professionals in the world.
- There is no substitute for work-based learning!



## Trailblazer Apprenticeships

Apply to England Only!

Scotland, Ireland and Wales will continue  
to deliver the existing framework  
apprenticeships



# Land-based Engineering Trailblazer Apprenticeships

Land-based Engineering has two approved Trailblazer apprenticeships

- ❖ Level 2 LBSE 'Service Engineer' Apprentice (18 - 24 months)
- ❖ Level 3 LBSE 'Technician' Apprentice (36 - 48 months)

All you need to know about each Trailblazer is outlined in two documents

- ❖ The Apprenticeship Standard
- ❖ The Apprenticeship Assessment Plan
- Standards and Assessment Plans must be approved and published by the Institute of Apprentices (IfA) otherwise no apprenticeship
- All Trailblazer apprenticeship documents can be viewed on the IfA website [www.instituteforapprentices.org](http://www.instituteforapprentices.org)

# The Governments Review of Apprenticeships began with The Richard Report 27<sup>th</sup> November 2012

Since the Richard Report 4 government departments have handled apprenticeships

- BIS (Business Innovation & Skills)
- SFA (Skills Funding Agency)
- Department for Education
- Institute for Apprenticeships (IfA) 2017

Since the Richard Report there have been 5 Ministers responsible for Apprenticeships

- John Hayes MP 2012 - 2013
- Mathew Hancock MP 2013 - 14
- Nicholas Boles MP 2014 - 16
- The Right Honourable Robert Halfon MP 2016
- Anne Milton MP June 2017

## Land-based Engineering Involvement With Trailblazers

- LE-TEC became involved in 2013 (Phase 2) of Trailblazers
- Service Engineer and Technician Standards wrapped around qualifications written and **approved Nov 2014**
- Service Engineer and Technician Assessment Plans **Approved 30<sup>th</sup> Oct 2015**
- Service Engineer and Technician Standards amended to include Construction and Plant **Approved 16<sup>th</sup> December 2016**
- **March 23<sup>rd</sup> 2017** updated Service Engineer and Technician Assessment Plans submitted and rejected
- The IfA mandated that qualifications were removed from our standards and advised that the level 2 standard was to be withdrawn. Qualifications withdrawn, Level 2 appeal won!
- The assessment plans and standards were then rewritten a further 2 times and underwent a funding review before finally being accepted and **published in 2018**
- **The Land-based Engineering industry recommends but cannot mandate that a qualification is delivered within the Land-based Engineering apprenticeships**
- The cost to LE-TEC so far has been in excess of £60,000 and its not finished yet!



# Land-based Engineering Trailblazers are for?

- Agricultural Engineers
- Outdoor Power Equipment Engineers
- Forestry Equipment Engineers
- Fixed Plant and Equipment Engineers
- Construction and Plant Engineers
- The Hire Industry
- Farm Mechanics
- Contractor's mechanics
- Golf Club mechanics
- Milking equipment Engineers
- Any engineering sector requiring the underpinning skills and knowledge that our apprenticeship delivers

- So who can be an apprentice?
- Just about anybody, you don't have to be a 16-19 year old school leaver
- Apprentices could be existing staff in the business who need upskilling.
- Those transferring from another industry
- Age is not a limiting factor
- Check with your training provider that the upskilling meets the requirements of an apprenticeship.
- The minimum apprenticeship length = 1 year 1 day of which 20% must be 'Off the job training'

# Apprenticeship Changes

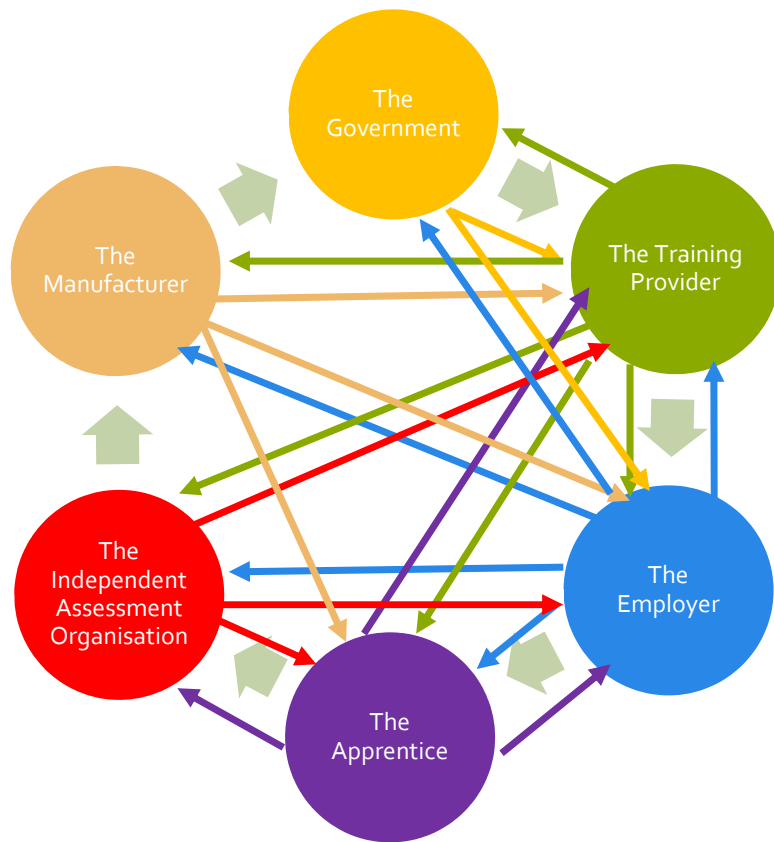
## The Old Apprenticeship Framework

- Funded from central Government (Present cost £1.5 billion)
- Government pay training providers a low fixed funding amount
- Employers are unaware of the apprenticeship cost.
- Apprentices assessed on programme
- Learning is a tick box exercise
- Apprenticeships cannot be failed
- Any learning programme can be labelled as an apprenticeship
- Apprenticeship framework funding will be withdrawn in April 2020? Perhaps!

## New Trailblazer Apprenticeship Standards

- Funded by the Employer Levy (Estimated cost by 2020 £3 billion)
- Employers negotiate a delivery price and may be asked to contribute to cost.
- Employers enter into a contract with the training provider who deliver the learning
- Apprentices undergo an end point assessment to establish that they are fit for purpose. (EPA)
- Apprenticeships are graded **Fail**-Pass - Merit - Distinction
- An apprenticeships now has to be government approved 'no approval no apprenticeship'

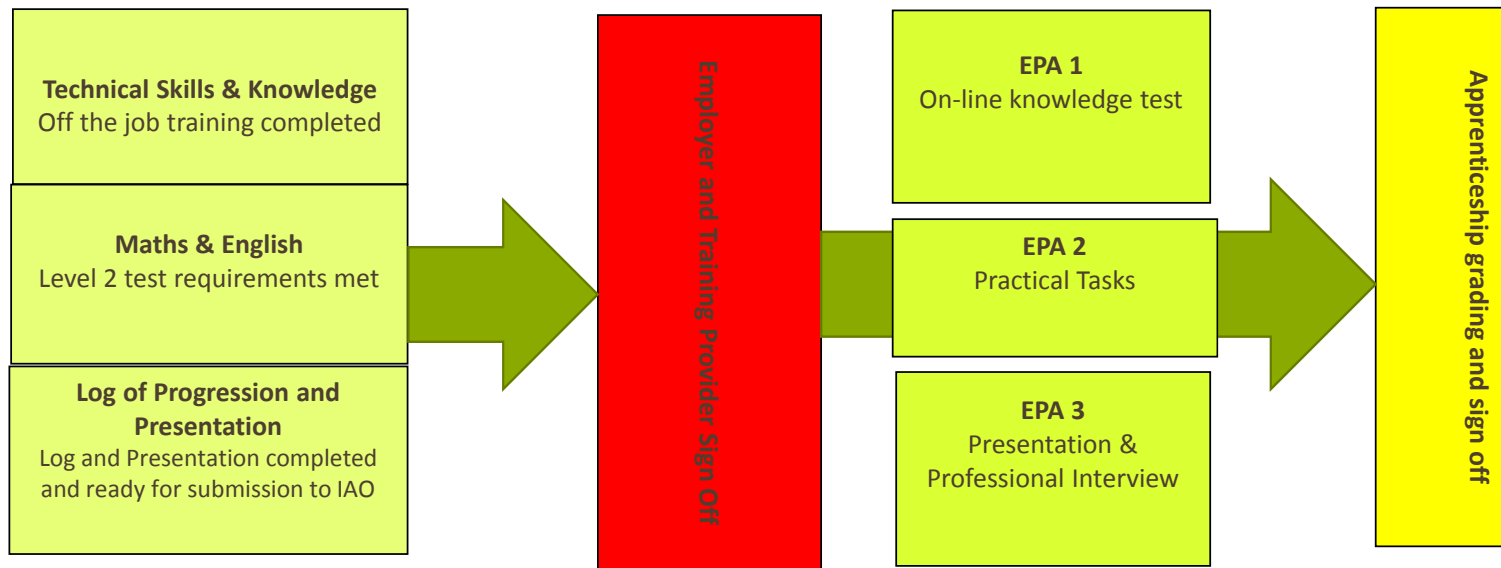
# The Apprenticeship Partnership



The apprentices success will depend upon;

- A clear understanding of the Roles and Responsibilities of each party
- Close cooperation between employer and training provider is essential
- Selecting the right person for the right apprenticeship
- Good communication
- Understanding the standards and assessment plans
- The apprentice's achievement of mandatory English and Maths requirements
- Successful completion of all of the assessments

# Moving From Learning to Assessment



# Apprenticeship End – Point - Assessments

- All trailblazer apprenticeship End Point Assessments (EPA's) must be carried out by a government registered Independent Assessment Organisation. It is the employers choice which one to use.
- All trailblazer apprenticeships must stipulate who will oversee the External Quality Assurance of the apprenticeship. Land-based Engineering is pleased to be working with Ofqual
- The End Point Assessments (EPA's) for Land-based Engineering apprenticeships fall into 3 areas;
  - 1) On-line Knowledge Test (Generic)
  - 2) Practical Tasks (3 separate tasks) (Generic and sector specific)
  - 3) Professional Interview (Presentation) (Generic)

The assessments are designed to assess the, Knowledge, Skills and Behaviours of the apprentice

- At the employer's expense it is possible to retake a failed assessment without further study. Failure to pass a second attempt will mandate a further period of study.

# On-Line Knowledge Assessments

Level	Question Type	Number of Questions	Grading %
2	Multi Choice	45	Pass 65% Merit 75% Distinction 90%
3	Multi Choice Short Answer Structured Answer	6 12 12 Total 30	Pass 65% Merit 75% Distinction 90%

# Grading The Apprenticeship

Individual EPA Grade achieved	Points Awarded	Apprenticeship Grading	Accumulated Points Range
Pass	1	Pass	3 - 5
Merit	2	Merit	6 - 7
Distinction	3	Distinction	8 - 9

Examples of the how apprenticeship grading is calculated

Practical Tasks EPA	Online Knowledge Test EPA	Professional Interview EPA	Points Total	Overall Grading Awarded
Pass 1 Point	Pass 1 Point	Merit 2 Points	4	Pass
Distinction 3 Points	Merit 2 Points	Pass 1 Points	6	Merit
Distinction 3 Points	Distinction 3 Points	Merit 2 points	8	Distinction

# Practical Task End Point Assessment

Duration of the complete Practical Task EPA	1 x 6 Hour Day
Number of tasks contained within the Practical Task EPA	3
Maximum duration of each of the practical tasks	1 Hour 45 Minutes

Grading			
Fail	Pass	Merit	Distinction

What is Assessed in the Practical Tasks EPA
Knowledge Skills Behaviours



## 2016 Apprenticeship Funding Matrix

	Cap 1	Cap 2	Cap 3	Cap 4	Cap 5
<b>Max Core Government Contribution, £2 for every £1 from employer</b>	£2,000	£3,000	£6,000	£8,000	£18,000
<b>Recruitment of 16-18 year old</b>	£600	£900	£1,800	£2,400	£5,400
<b>Small Business Supplement &lt;50 employees</b>	£500	£500	£900	£1,200	£2,700
<b>Successful Completion of Apprenticeship</b>	£500	£500	£900	£1,200	£2,700
<b>Maxim Government Contribution</b>	£3,600	£4,900	£9,600	£12,800	£28,800

# Trailblazer apprenticeship funding from May 2017

Details from Department for Education  
Funding bands increased from 5 to 15 bands

Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8	Band 9	Band 10	Band 11	Band 12	Band 13	Band 14	Band 15
£ 1500	£ 2000	£ 2500	£ 3000	£ 3500	£ 4000	£ 5000	£ 6000	£ 9000	£ 12000	£ 15000	£ 18,000	£ 21000	£ 24000	£ 27,000
<b>Trailblazer apprenticeships</b> Totals shown in each band are the <u>maximum</u> that government will contribute											Land-based Engineering Service Engineer			Land-based Engineering Technician

# Trailblazer apprenticeship funding from May 2018

Details from Department for Education  
Funding bands increased from 15 - 30 bands

Band 1	£1,500
Band 2	£2,000
Band 3	£2,500
Band 4	£3,000
Band 5	£3,500
Band 6	£4,000
Band 7	£4,500
Band 8	£5,000
Band 9	£6,000
Band 10	£7,000
Band 11	£8,000
Band 12	£9,000
Band 13	£10,000
Band 14	£11,000
Band 15	£12,000
Band 16	£13,000
Band 17	£14,000
Band 18	£15,000
Band 19	£16,000
Band 20	£17,000
Band 21	£18,000
Band 22	£19,000
Band 23	£20,000
Band 24	£21,000
Band 25	£22,000
Band 26	£23,000
Band 27	£24,000
Band 28	£25,000
Band 29	£26,000
Band 30	£27,000

**Trailblazer apprenticeships**  
Totals shown in each band are the maximum  
that government will contribute

# Funding Clarification

- The funding band indicates the maximum that the government will contribute towards the apprenticeship. (This is not the defined cost of the apprenticeship)
- The assessment cost can be no more than 20% of the funding band total
- Employers are expected to negotiate the price of the apprenticeship delivery with the training provider
- Employers can request add-on elements to the apprenticeship for which they will be charged accordingly
- Employers cannot ask for elements of the apprenticeship standard to be deleted from the apprenticeship. If its in the standard it has to be delivered!
- Costs over and above the apprenticeship funding band will be invoiced to the employer
- Government release 80% of the funding spread equally over the apprenticeship and withholds the final 20% until completion of the apprenticeship

# Co-Investment in Apprenticeships: From August 2018

Levy Payers (Pay bill over £3 million)	HMRC collect levy payment £ sterling each month
	Multiply by % of staff working in England
	Add 10% Government contribution
<i>Credits in the employers account are valid for 24 months</i>	Credit contributions into the Employers Apprenticeship Service Account each month Credits are digital not £ sterling
Non Levy Payers > 50 employees	Government pay 90% of the apprenticeship cost
	Employer pays 10% of the apprenticeship cost
Non Levy Payers < 50 Employees	Government pays 100% of costs up to funding band allocated

# Incentives to Employ Apprentices

- Employers receive £1,000 for taking on a 16-18 year old apprentice or a 19-24 year old apprentice who has previously been in care. 50% paid at 3 months and the balance at 12 months. Paid via the training provider. Paid in £ sterling not credits
- For apprentices without basic English and Maths at Level 2. The government will fund training providers £471 per subject to deliver this.
- Training providers also receive £1,000 for taking on a 16-18 year old apprentice or 19-24 year old apprentice classified as a care leaver.
- For full details go to [www.gov.uk](http://www.gov.uk) and search for apprenticeship funding rules 2018 to 2019



The New Trailblazer  
Apprenticeships will be  
as successful as the  
Industry makes them



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## A Thought To Leave You With



The only thing worse than training employees and having them leave

Is not training them and having them stay