15 - 16 November, Wembley Stadium, UK

Nurturing project control talent and creating a pathway for future growth

Catherine Lambert

Scope

1. What is the ECITB?
2. EC projects and skills requirements
3. Companies that have identified their training requirements
4. What exists - training pathway (quals and standards)
5. Which companies developed it?
6. Who delivers?
7. Nationally recognised badge of competence
8. Sample of the content
9. Be involved
10. Recap

A bit about the ECITB

The Engineering Construction Industry Training Board (ECITB) is the skills, standards and qualifications body for the development of the engineering construction workforce of Great Britain. An awarding organisation and custodians of the NOS for EC.

Engineering construction makes up more than one-fifth of the total UK economy and supports the nation's critical infrastructure.

Established 1991

Since 2020 have invested £71M in skills to support training and improve productivity across apprentices, graduates and adult workers.

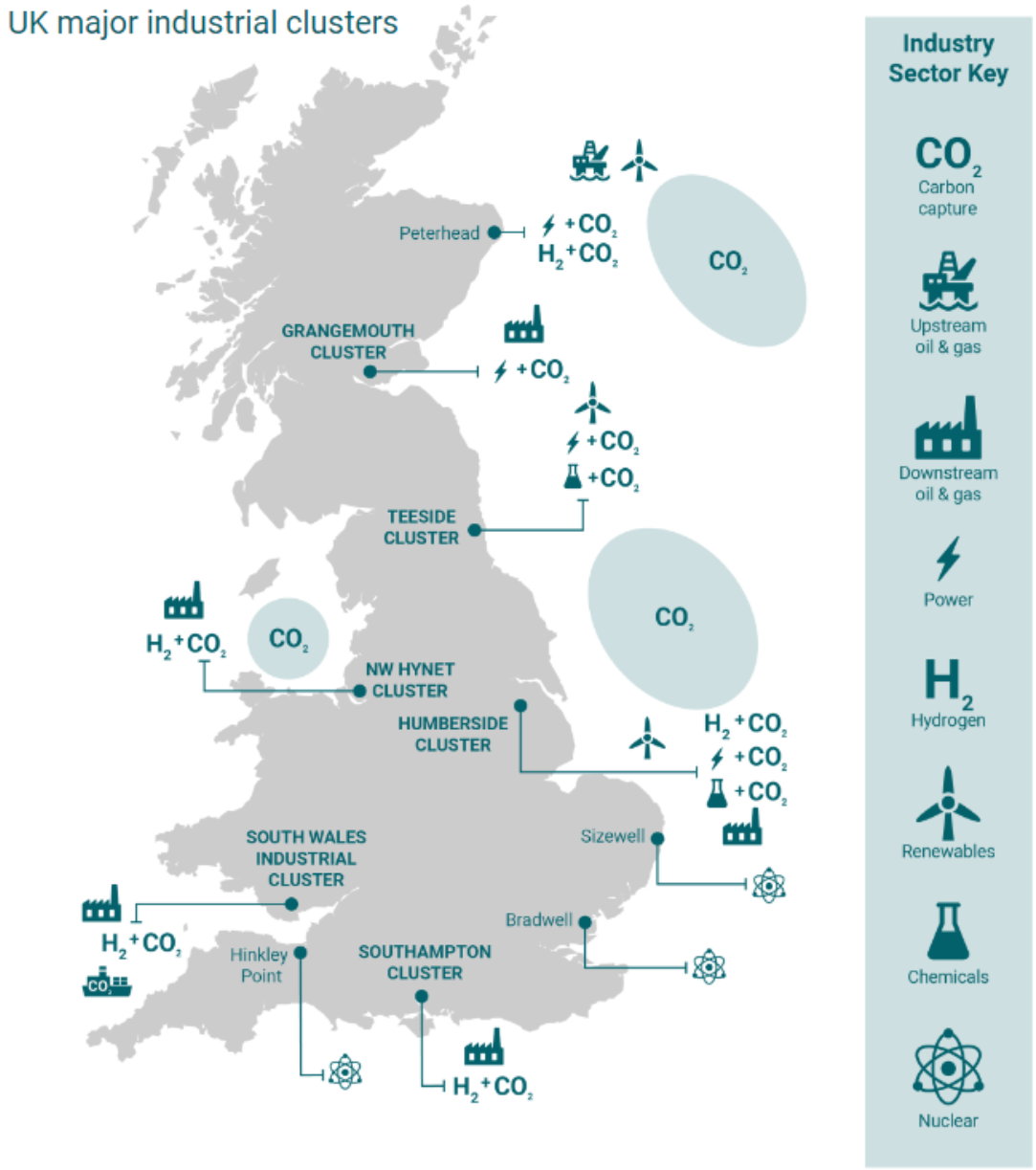
Funding

- **Employers vote every three years**
- **2022 – votes in favour**
  - **85% of levy-paying employers**
  - **accounting for 97% of levy**

Mission to lead industry learning.

Major projects

- Our employers and the learners we support will play a major role in achieving the UK's net zero targets
- They will be involved in projects to reduce operational emissions and decommission oil and gas assets, new nuclear and renewable energy and in laying the infrastructure for hydrogen and carbon capture technologies
- Key challenges will be applying existing engineering skills in new contexts and having the right number of skilled people at the right time
- Ensuring the skills of the estimators, planners, schedulers project and cost controllers



Company driven

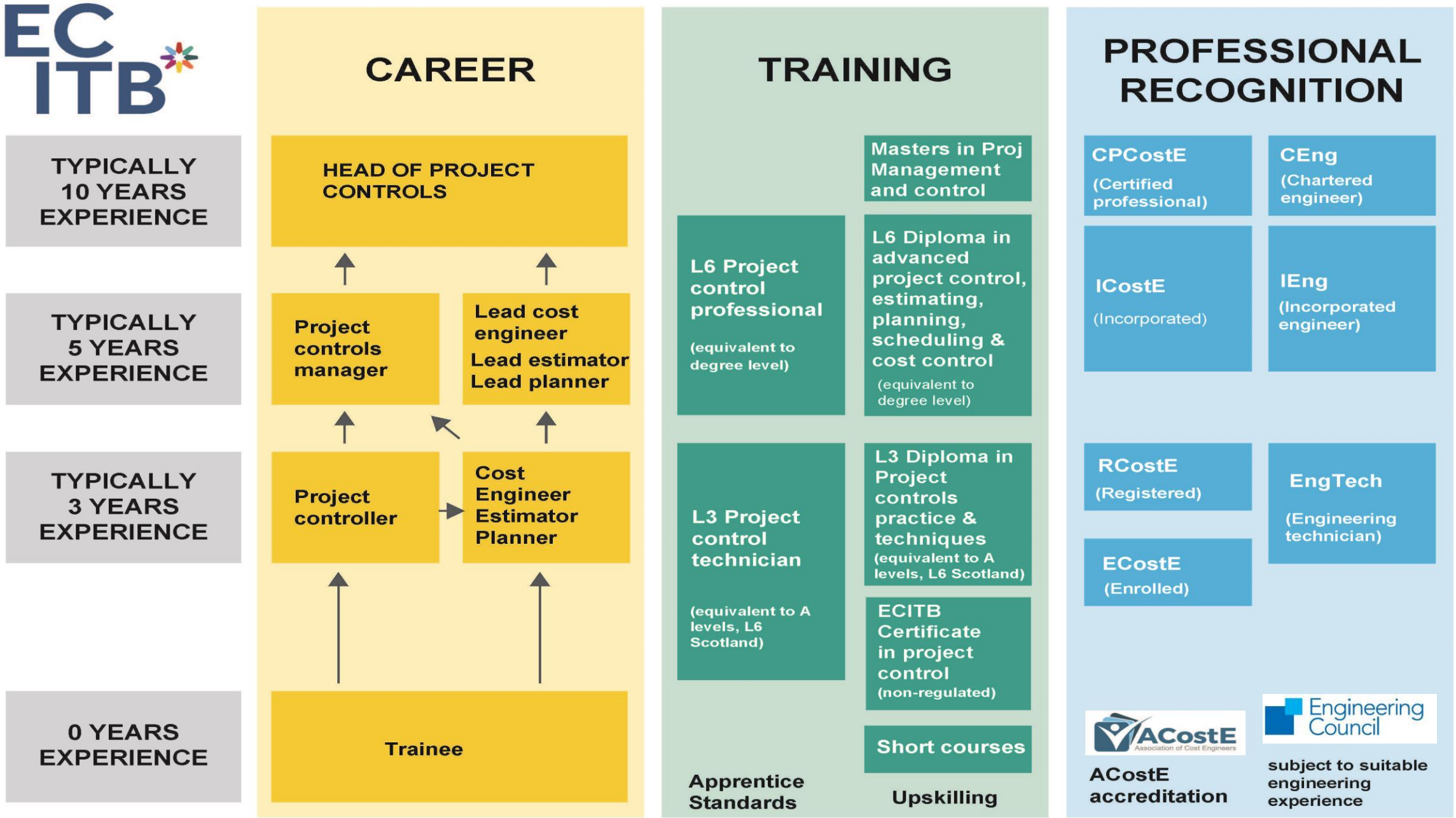
Independent assurance
- underpinning elements for a training framework

Basics of skills – NOS

Curriculum for a training course – training standards

Badge of training – short courses

Certificate of competence – qualifications and apprenticeships


CAREER
TRAINING
PROFESSIONAL RECOGNITION
TYPICALLY 10 YEARS EXPERIENCE
TYPICALLY 5 YEARS EXPERIENCE
TYPICALLY 3 YEARS EXPERIENCE
0 YEARS EXPERIENCE
HEAD OF PROJECT CONTROLS
Project controls manager
Lead cost engineer
Lead estimator
Lead planner
Project controller
Cost Engineer
Estimator
Planner
Trainee
Masters in Proj Management and control
L6 Project control professional
(equivalent to degree level)
L6 Diploma in advanced project control, estimating, planning, scheduling & cost control
(equivalent to degree level)
L3 Project control technician
(equivalent to A levels, L6 Scotland)
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ECITB Certificate in project control
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Short courses
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ECostE
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ACostE
Association of Cost Engineers
ACostE accreditation
Engineering Council
subject to suitable engineering experience

Companies involved

Costain, 20/20 Business Group (training company), ACostE, ACSL, Aker Solutions, Amec Foster Wheeler, Atkins Global, Balfour Beatty, BCECA, Bechtel, Cavendish Nuclear, CB&I, CH2MHill, CICES, Cumbria University, Decipher Group, Diviani Consulting, Doosan, ECITB, EDF Energy, Engineering Construction Institute, Fabricom Engie, First Planner, Fluor, Gardiner and Theobold, Gen2 (training company), HS2, KBR, Laker Vent, Leeds University, Loughborough University, Magnox, Manchester University, Monitor Mpower (training company), N-SAN, Pathfinder planning, Petrofac, Prima Uno, Project Controls Institute, Richmond College, RICS (Royal Institute of Chartered Surveyors), Sellafield, Sunbeam, Turner and Townsend, TASC (training), DES, AWE, Engie, EDF NNB, QinetiQ, Wood PLC, WSP, Amey plc, BAE Systems, Blackpool College, ACostE, 20/20 Business Insight, Bridgwater College, London Metropolitan College

Delivering

20/20 Business Insight Limited	Lakes College	T3 Training and Development
Barnsley College	London Metropolitan College	TASC (The Assessment Service Centre)
Bridgwater College	Middlesbrough College	The Engineering College
Altrad Babcock	The Education Training Collective (formerly Neta)	The International Assessment Centre Ltd
GenII Engineering Technology Training Ltd	Richmond Upon Thames College	Training 2000 Ltd
Humberside Engineering Training Association	Stockport Engineering Training Association Ltd	

Apprenticeship standards

Barnsley College

The Education Training Collective

Learning Skills Partnership Ltd

Humberside Engineering Training Association Limited

Solihull College And University Centre

London Metropolitan College Limited

Richmond Upon Thames College

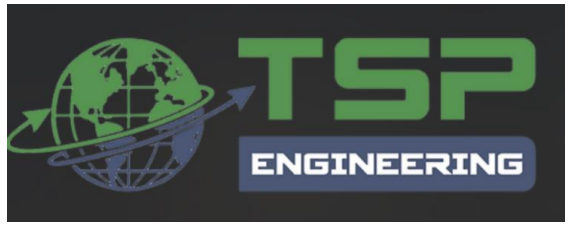
T3 Training & Development Ltd

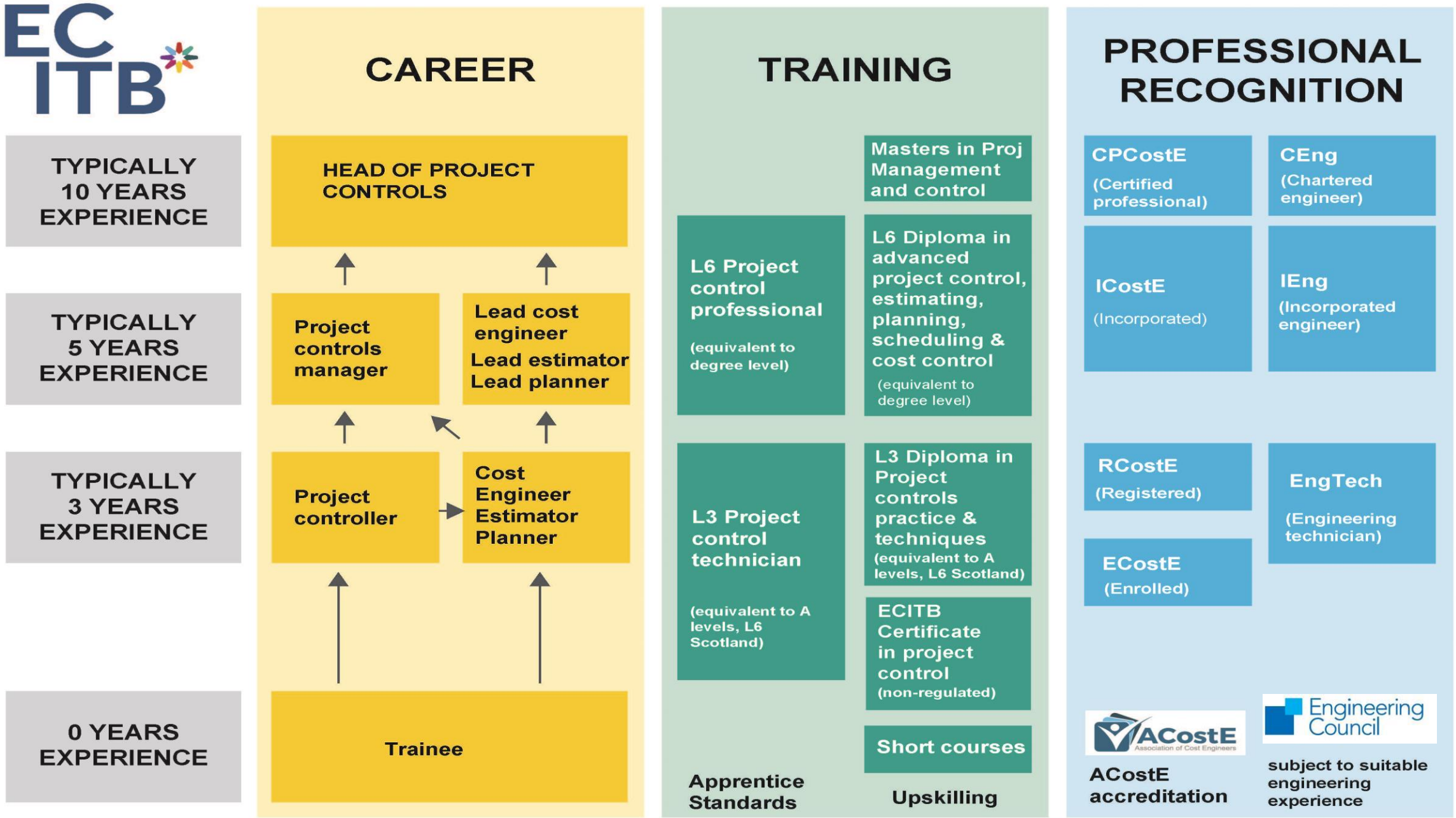
Bridgwater And Taunton College

The Prime College Limited

Altrad Babcock Limited

Example – one training provider delivering

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Entry points and independent assurance

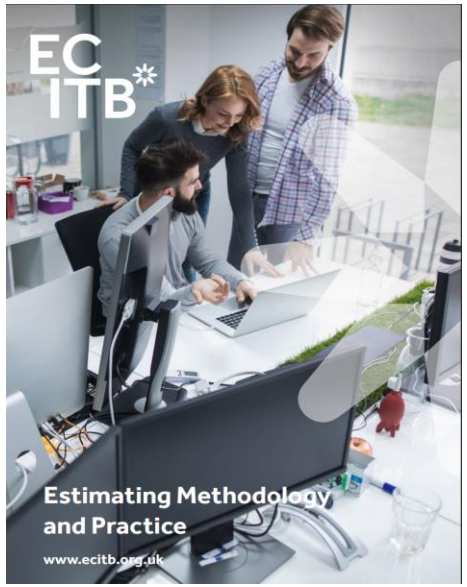
New entrants – training at college, able to access full funding

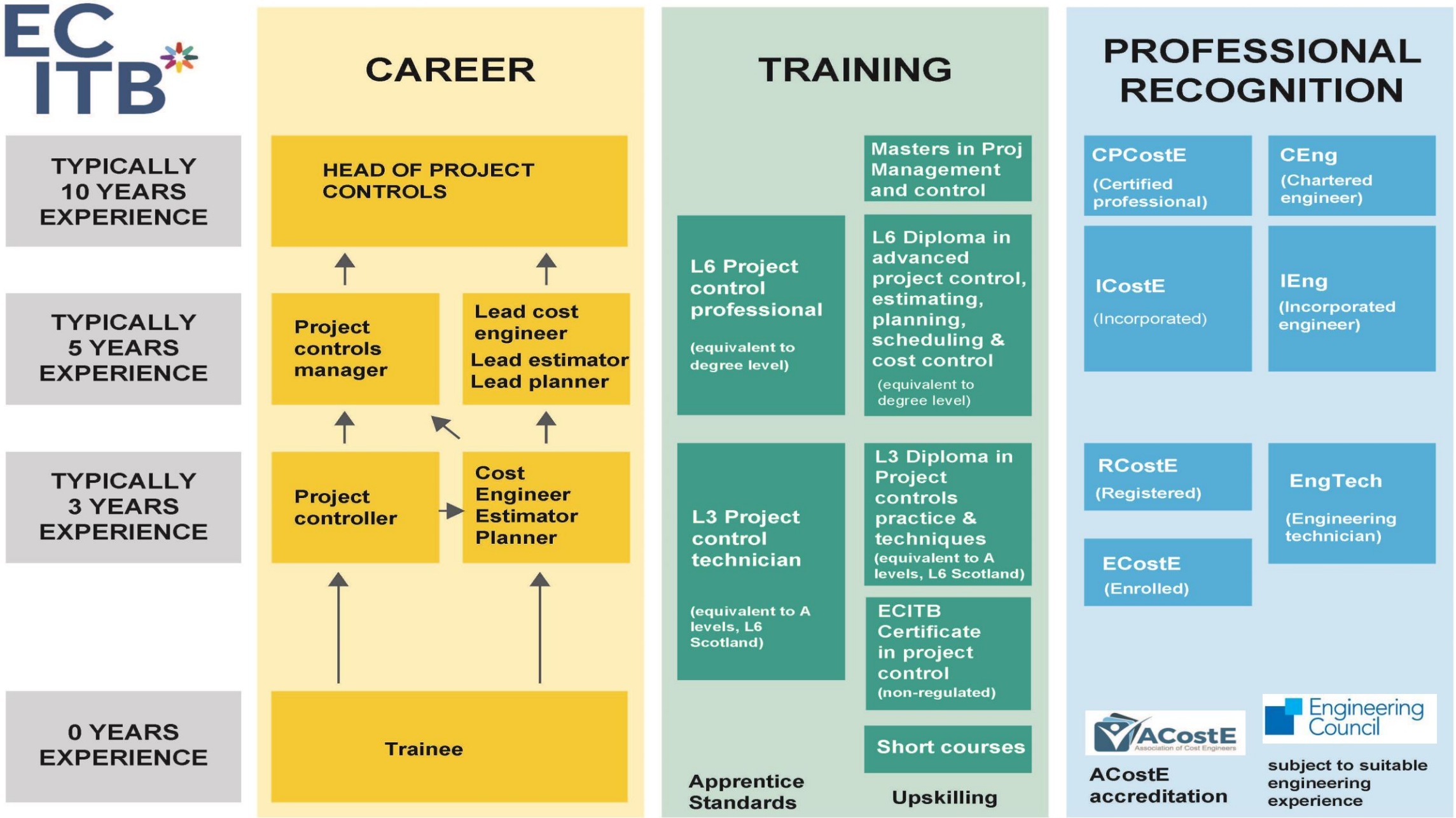
- Project controls technician (up to £21K)
- Project controls professional, level 6 (up to £27K)

Working professionals

- Choice of nationally recognised badge of competence- qualifications or apprenticeship standard
- Discuss with a training provider or assessment centre
- Identify existing level of KSBs and any gaps
- Start at an point i.e. may take 1 year rather than 3 or 4

More information

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Be involved

Drive forwards the take-up and increase in knowledge and skills

Create the people needed

To build what the UK requires

To ensure the infrastructure for all across the UK is modern and meets our needs

Move forwards to a low carbon energy generation future

THANK YOU

ECITB Certificate in Project Controls

- 8 modules spread over a 9-months
- full day of teaching plus additional reading and assignments.
- For each module, learners undertake an assignment, apply the skills and knowledge they have learnt to develop project-specific documentation for either an engineering construction or nuclear-based simulated project that runs throughout the duration of the course.
- Each module includes a practical assignment that require self-directed learning to find out about how their own company undertakes specific project controls processes.
- Integrated within the course alongside the technical project controls learning, the learners develop their team work and communication skills, including presenting and report writing.

Level 3 Diploma in Project Controls Practice and Techniques (RQF)

PC01 Project controls fundamentals and related safety, ethics, environmental sustainability and governance.

PC02 Effective communication and behaviour.

PC03 Risk and opportunity management.

PC04 Commercial awareness and procurement activities.

PC05 Scope interpretation including project controls planning.

PC06 Work and cost breakdown and coding structures.

PC07 Scheduling practice and techniques.

PC08 Estimating practice and techniques.

PC09 Developing the initial budget and baseline.

PC10 Optimisation practice and techniques.

PC11 Track progress: data flows, IT systems and managing detai controls data.

PC12 Analyse data and forecast out-turns.

Level 6 Diploma in Advanced Project Controls Practice and Techniques (RQF)

Qualification pathways:

- estimating
- planning and scheduling
- cost engineering
- integrated project controls practice

	Qualification pathway			
	Estimating	Planning and scheduling	Cost engineering	Integrated project controls
APC01 Developing own professional competence	✓	✓	✓	✓
APC02 Communicating to advise and influence project decisions	✓	✓	✓	✓
APC03 Controlling uncertainties with risk and assumption management	✓	✓	✓	✓
APC04 Defining requirements and preparing a project controls plan	✓			
APC05 Managing commercial and contractual arrangements	✓	✓	✓	✓
APC06 Applying data-centric execution and analytics	✓	✓	✓	✓
APC07 Applying optimisation and performance improvement	✓	✓	✓	✓
APC08 Applying change control processes and management	✓	✓	✓	✓
APC09 Monitoring and controlling progress and performance	✓			
APC10 Forecasting to influence future conditions	✓	✓	✓	✓

APC11 Applying estimating practice	Estimating pathway			
APC12 Applying planning and scheduling practice		Planning and scheduling pathway		
APC13 Applying cost engineering practice to set budgets and cost baselines			Cost engineering pathway	
APC14 Applying integrated project controls practice				Integrated project controls pathway

Use a standard – create a course

- A set of standards that detail the skills and knowledge needed
- Comprehensive and detailed
- Trainers and companies can use them to develop their own training
- Training courses are quality reviewed and approved by ECITB on behalf of the industry

- Linked to the vocational qualifications
- Project controls, estimating, planning and cost engineering
- Levels 2, 3 and 5

- Kingsfield consulting
- 20/20 Business group

ID	Learning Outcome	ID	Enabling objectives and key learning points. *On completion of the training, the learner must be able to:*	Assessment Criteria links
1	**Understand the processes for risk, opportunity and uncertainty management and analysis**	1.1	Describe what risk is, its importance and the consequences of poor risk management, including: a) Link between effective risk management and project deliverability b) Importance of assumptions c) Relationship between assumptions and risk d) Relationship between scope and contingency e) Importance of developing and maintaining a related stakeholder communication plan	LO1.1 LO4.1
		1.2	**Explain** the characteristics of, definition* of and difference between the main terms used in risk management, including: a) Risk b) Opportunity c) Threat d) Uncertainty e) Describing risk *Can be tailored for specific industries (touch on APM / PMI definitions as appropriate)	
		1.3	**Describe** the key aspects of a risk management plan, including: a) Defined process b) Regular monitoring c) Methodology	LO3.4 LO4.1

Refreshed NOS