AECOM UK&I Training and Development Scheme

Apprentices | Graduates | Developing Engineers | Chartered Engineers

CIBSE Training and Development Forum

Peter Sutcliffe

Jennifer Cox

Rob Green

Delivering a better world

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Agenda

01 Introductions

02 AECOMs Training and Development Scheme

03 T&D Handbook

04 Mock Interviews

05 Mentors

06 What's Next

07 Q&A

Introduction

Peter Sutcliffe

AECOM Engineering

AECOM UK & Ireland

We bring benefit to our clients through the application of previous learning and the retention of the knowledge it brings. In addition to the knowledge management systems we use in our day-to-day operations, we focus on people retention and consistency in deployment as the optimum way to bring advantage to a project.

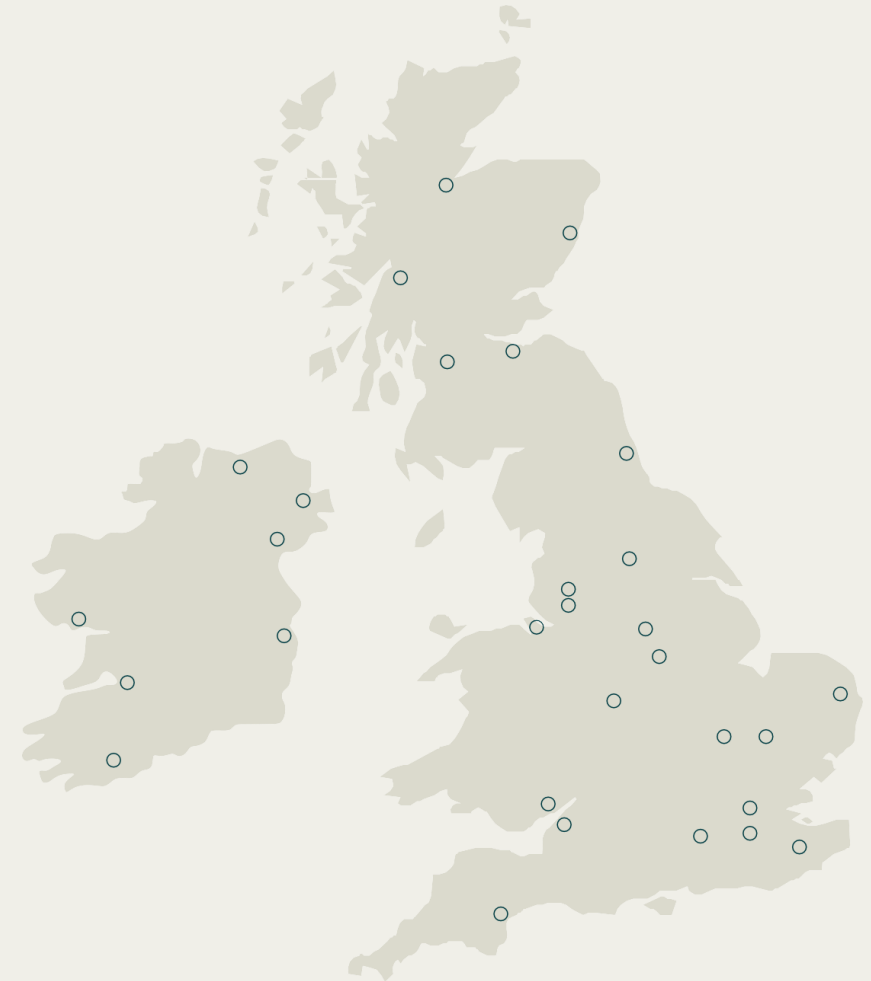In order to manage peaks in our workload, we use tried and tested methods for predicting workload in advance using both project specific and 'supported manpower' approaches. We also have a flexible network of offices around the UK, so that resources can be reallocated from one office to another in the case of local peaks. We have standardised methods of working across the offices to ensure that where necessary work or personnel can be transferred with minimal disruptions.

We are an industry leader in the provision of full design team services, and also in project, cost and programme management. With over 7,200 technical staff in the UK and Ireland alone, of which 1,600 reside in our London campus, AECOM has an enhanced and unmatched office capability and therefore we do not require or utilise sub-consultants in the delivery of our services. All of the required skills and expertise will be provided by our in-house resources.

UK Offices

Aberdeen	Limerick
Altrincham	Liverpool
Ashford	London
Basingstoke	Londonderry
Bedford	Leeds
Belfast	Manchester
Birmingham	Newry
Bristol	Newcastle-upon-Tyne
Cardiff	Norwich
Chelmsford	Nottingham
Cambridge	Oxford
Chesterfield	Peterborough
Cork	Plymouth
Croydon	Southampton
Dublin	St Albans
Edinburgh	Swindon
Exeter	Teeside
Galway	Telford
Glasgow	Warrington
Inverness	York

#1

**BUILDING
ENGINEERING**
ENR 2020

#1

**ENVIRONMENTAL
FIRM**
ENR 2020

#1

**COMPANY
OF THE YEAR**
CONSTRUCTION
COMPANY OF THE
YEAR 2020

+500

**6 YEARS - WORLD'S
MOST ADMIRED
CAMPANIES**
FORTUNE 500
TOP COMPANY'S

Training & Development Team

UK&I MEP Training & Development Team

Peter Sutcliffe
Managing Director, MEP UK&I

Mary-Ann Clarke
(T&D Lead)
Regional Director

Jennifer Cox
(T&D Lead)
Electrical Engineer

Sarah Boyd
(T&D Administrator/
Maternity Leave)
Technical Administrator

Rob Green
(T&D South Champion)
Associate Director

Stephen Lear
(T&D North Champion)
Associate Director
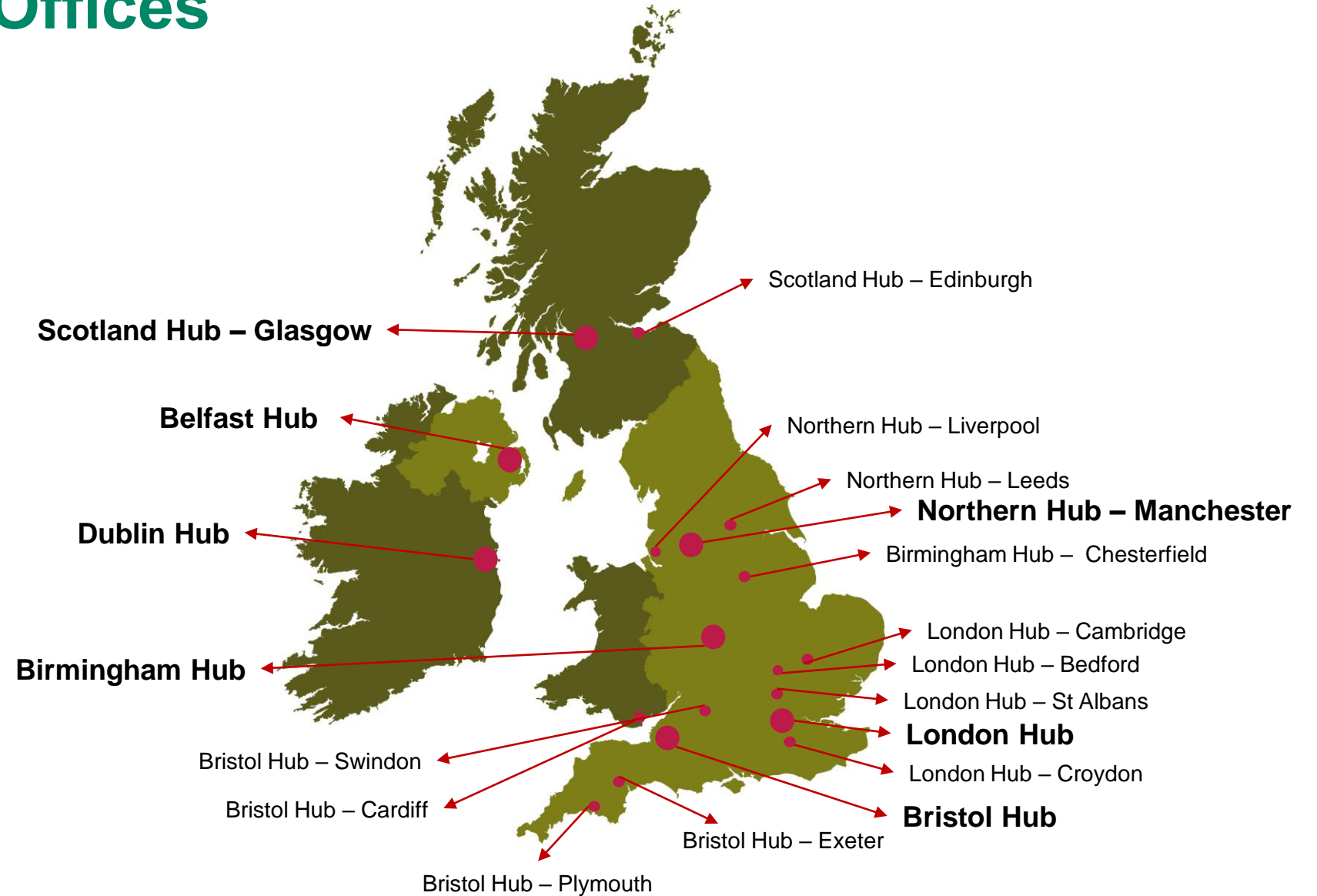
Kayley Reid – Abidoph
(T&D Administrator)
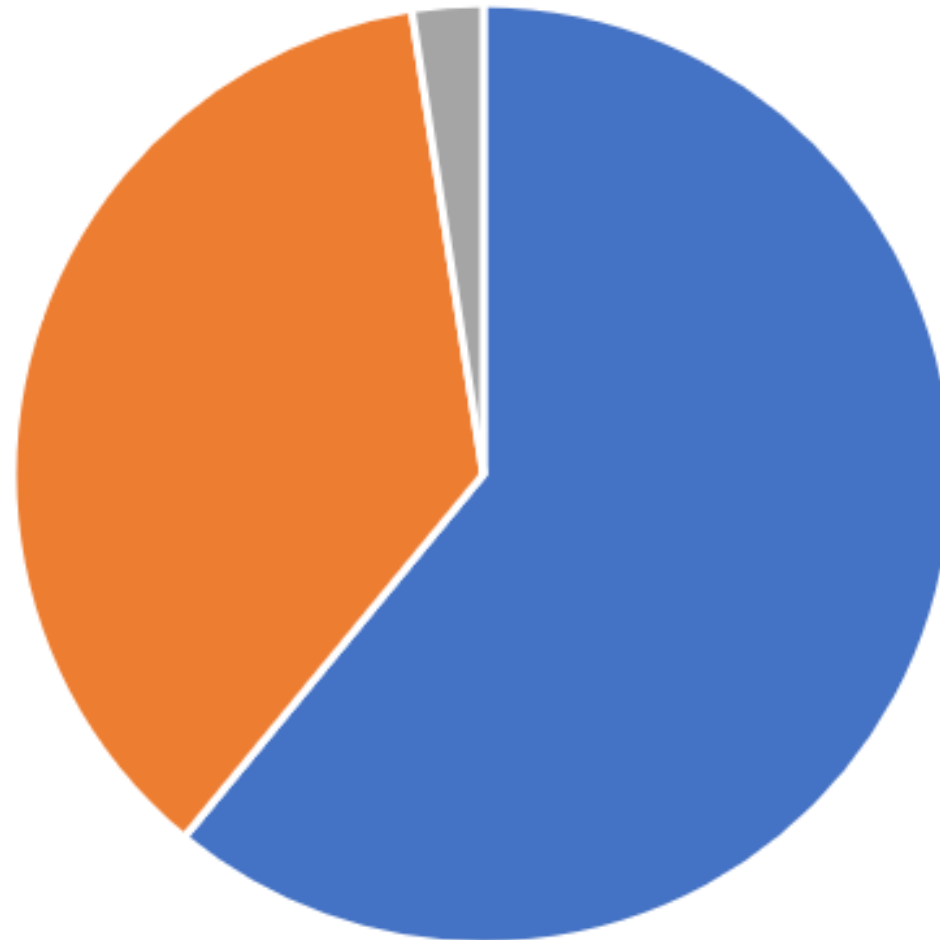Technical Administrator

1

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Training and Development Scheme

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AECOM's 7 Hub Offices

Scotland Hub – Edinburgh

Scotland Hub – Glasgow

Belfast Hub

Northern Hub – Liverpool

Northern Hub – Leeds

Dublin Hub

Northern Hub – Manchester

Birmingham Hub – Chesterfield

London Hub – Cambridge

Birmingham Hub

London Hub – Bedford

London Hub – St Albans

London Hub

Bristol Hub – Swindon

London Hub – Croydon

Bristol Hub – Cardiff

Bristol Hub

Bristol Hub – Exeter

Bristol Hub – Plymouth

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Year 1 & 2 (Early Careers)		End Goals
Apprentices	HNC	EngTech
	Other	IEng
Graduates	BEng/ MEng	IEng

Years 3 & 4 (Developing Engineers)		
IEng Engineers or Non-Chartered Engineers		CEng
Chartered Engineers		Becoming Mentors Advanced Project Work

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Training Programme - Route for CIBSE Trainees

■ IENG (25) ■ CENG (15) ■ ENGTech (1) ■

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Training

National Approach

Sharing Knowledge

CPD and Professional Competence

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Training

1
Year 1
- Introduction Courses
- Discipline specific technical course
- BIM training

2
Year 2
- Discipline specific technical courses
- Net-Zero Carbon
- Soft Landings

3
Year 3
- Commissioning and Testing
- Safety in Design
- Building Regulations

4
Year 4
- Internal Project Management

Young Engineers Forum

- For Young Engineers by Young Engineers

- Specialist teams involved too

- Feedback at the heart

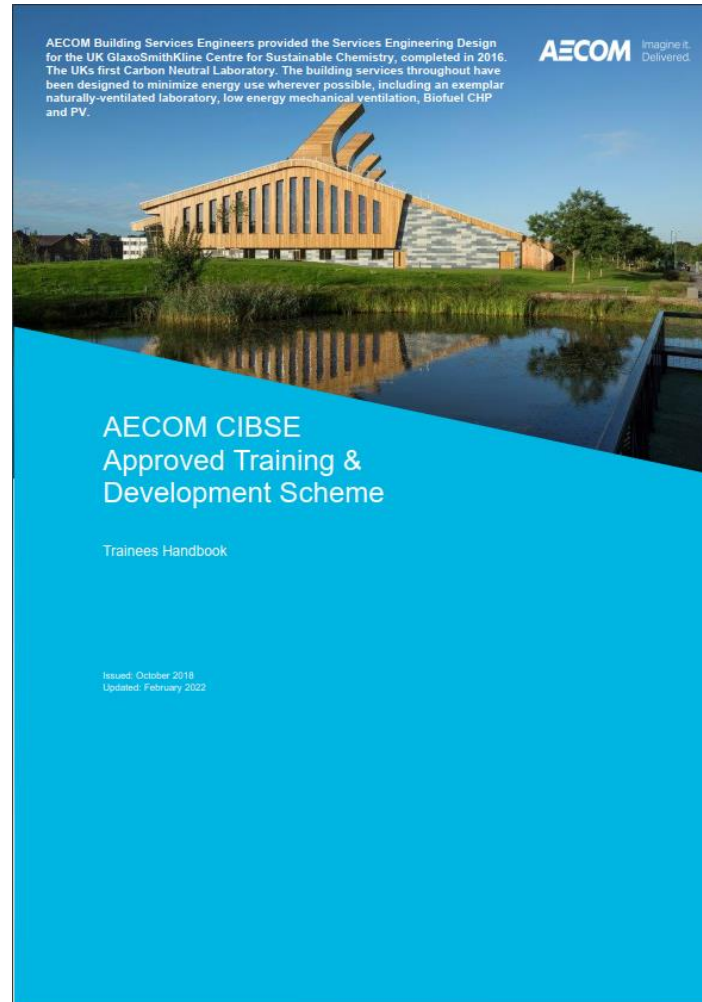- National YEN Session

- Approval for more across the business

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T&D Handbook

Rob Green

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AECOM CIBSE T&D Handbook

See T&D
Sharepoint
Professional
Institutes/CIBSE

Welcome
(sharepoint.com
)

AECOM Building Services Engineers provided the Services Engineering Design for the UK GlaxoSmithKline Centre for Sustainable Chemistry, completed in 2016. The UKs first Carbon Neutral Laboratory. The building services throughout have been designed to minimize energy use wherever possible, including an exemplar naturally-ventilated laboratory, low energy mechanical ventilation, Biofuel CHP and PV.

AECOM Imagine it. Delivered.

AECOM CIBSE Approved Training & Development Scheme

Trainees Handbook

Issued: October 2018
Updated: July 2021

Table of Contents

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3 Engineering Council UK-SPEC Competencies

UK-SPEC Competency Areas

A. Knowledge and understanding
B. Design and development of processes, systems, services and products
C. Responsibility, management or leadership
D. Communication and inter-personal skills
E. Professional commitment

UK-SPEC Competencies

The competencies listed below are a summary of the information provided in CIBSE factsheet M21 (Member level). Refer to the relevant CIBSE factsheet (M21/A21/L21) for further descriptions, range and evidence examples for each of the competencies. In addition to the CIBSE factsheets, AECOM-Specific Evidence Examples are provided in the appendices of this handbook to help you identify where day-to-day activities at AECOM fit in to the CIBSE Objectives.

A	Knowledge and understanding
A1	Gain knowledge and identify new areas for development and research
A2	Demonstrate understanding eg: identify how design processes can be improved

B	Design and development of processes, systems, services and products
B1	Identify the techniques, procedures and methods needed to produce the building design
B2	Undertake design activities eg: production of calculations, drawings, reports and specifications
B3	Manage implementation of design solutions - eg: construction stage activities

C	Responsibility, management or leadership
C1	Plan for effective project implementation
C2	Plan, budget, organise, direct and control tasks, people and resources
C3	Lead teams and develop staff
C4	Bring about continuous improvement

D	Communication and inter-personal skills
D1	Communicate in English with others at all levels
D2	Present and discuss proposals
D3	Demonstrate personal and social skills

E	Professional commitment
E1	Comply with professional codes of conduct and guidance
E2	Manage and apply safe systems of work
E3	Undertake engineering activities in a way that contributes to sustainable development
E4	Carry out and record CPD
E5	Exercise responsibilities in an ethical manner

Appendix B – MEP Training & Development Competency Progress Tracker

To open in Excel: Right click, select 'Worksheet Object', select 'Open'.

MEP Training & Development Competency Progress Tracker
Tool for tracking progress towards Institution Membership (eg: CIBSE/IMechE/IET) and Professional Registration (eg: IEng/CEng)

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Progress Tracker - Quarterly Report Competencies
Trainee to populate with the number of times each compency has been covered in each quarter

		A Knowledge and understanding		B Design and development of processes, systems, services and products			C Responsibility, management or leadership				D Communication and inter-personal skills			E Professional commitment				
Year	Quarter	A1	A2	B1	B2	B3	C1	C2	C3	C4	D1	D2	D3	E1	E2	E3	E4	E5
Y1	Q1	1																
	Q2																	
	Q3																	
	Q4																	
Y2	Q1																	
	Q2																	
	Q3																	
	Q4																	
Y3	Q1																	
	Q2																	
	Q3																	
	Q4																	
Y4	Q1																	
	Q2																	
	Q3																	
	Q4																	
		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Progress Tracker - Annual Assessment Score
Mentor to score, allocating a level to each competency area at the end of each year on the scheme

Year	A Knowledge and understanding	B Design and development of processes, systems, services and products	C Responsibility, management or leadership	D Communication and inter-personal skills	E Professional commitment
Y1					
Y2					
Y3					
Y4					

Mentor to allocate the level attained for each of the five competency categories at the end of each year the trainee is on the Training & Development Scheme. The levels to be allocated are:

Level 1: Aware - Performs the activity with significant supervision and guidance. Performs basic routine and predictable tasks. Little or no individual responsibility.
Level 2: Familiar - Performs the activity in a range of contexts. Supervision only required in more complex circumstances. Some individual responsibility or autonomy.
Level 3: Skilled - Performs the activity in some complex and non-routine contexts. Significant responsibility and autonomy. Can oversee the work of others.
Level 4: Expert - Performs the activity in a wide range of complex and non-routine contexts. Substantial personal autonomy. Can develop others in the activity.

As a guide, trainees should be achieving a minimum of three level 3s and two level 2s before applying for Institution Membership and/or Professional Registration.

This Progress Tracker has been provided as a tool which can be used to help the trainee and mentor track progress, identify gaps in knowledge & experience and consider when the trainee is likely to be ready for application. The record of Quarterly Report Competencies should be kept up to date by the Trainee and the Annual Assessment Score completed by the Mentor.

This tracker is based on a four year period which is the shortest time a trainees is expected to be on the scheme from commencement to application. Add rows to the tracker as appropriate for additional years on the scheme.

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Objective C1

AECOM Evidence Examples:

IN-HOUSE DESIGN PROJECT IMPLEMENTATION

- Take part in in-house Project Briefing meeting which addresses the planning of the project in terms of programme, functional brief, budget, quality, risk, organisation, task allocation, people and resources.
- As part of the above prepare the CDM risk register
- Establish the Project Management Plan.
- Take part in the leading of work teams to maintain quality standards.
- Take part in in-house Post project Reviews.
- Gain knowledge of overhead cost structure and how it is applied to management control systems
- Gain knowledge of the Company's program for financial and resources management in projects.
- Gain knowledge of procedures for preparing interim and final accounts for projects.
- Prepare documentation to obtain quotations and technical data for plant and equipment; analyse returns; appreciate the need to obtain certified data and not rely on manufacturers' literature before incorporating into a design.
- Gain an appreciation of various techniques of cost estimating, e.g. cost/unit area; measurement of quantities.
- Understand the use of Bills of Quantities and standard methods of measurements by liaison with or secondment to QS, and reading relevant reference books.
- Gain an appreciation of Total Life Costing methods.

Further Experience:

Become aware of your ability to control individual elements of overhead costs.

Take an increasing responsibility for the planning of resources and monitoring progress in achieving programme and cost targets on projects; make proposals to increase efficiency and profitability; take part in marketing, planning, publicity and public relations activities; attend business and management training courses.

Take an increasing responsibility for obtaining technical and cost data for plant and equipment and preparation of estimates in liaison with the project QS; gain experience of projects involving PPP, PFI and other forms of client procurement.

Gain further experience liaising with Clients in the application of total life costing techniques.

Objective No D1

AECOM Evidence Examples:

- Learn about the systems used within the Company for general administration; Health & Safety, staff records, appraisals, training etc
- Learn about the systems used within the Company for managing projects; Quality Assurance, project records, storing of instructions/data /correspondence, Design Manuals, Library
- Read reports, minutes of meetings, correspondence, and prepare notes of actions
- Write formal letters, faxes, emails
- Take notes at meetings, prepare formal minutes
- Assist in preparation of reports
- Give an in-house talk on a technical or other subject
- Attend presentations to other members of the design team and to clients
- Involve manufacturers, professionals, construction teams, clients in continuous dialogue
- Negotiate on variations/instructions
- Manage handover documentation
- Advise and assist building occupants post handover
- Networking at external events

Further Experience:

Extend involvement in all the above activities; take increasing responsibility for preparation of reports and dealing with the correspondence; making presentations to clients and others; represent the company at meetings; take the chair at meetings

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Objection No D2

AECOM Evidence Examples:

- Participate in receiving and developing a brief having due regard to cultural and commercial backgrounds of clients and colleagues
- Develop and practice skills in presentation e.g. appropriate software, flip charts, overheads, having prepared the material.
- Attend seminars, courses, feed back knowledge gained, ask questions and debate answers
- Attend and participate in presentations to prospective clients
- Attend and participate in selection interviews with prospective clients
- Take part in fee bid preparation
- Present at in-house project reviews
- Present in design team meetings

Suggested Timetable for CIBSE Applications

1st Feb CIBSE Submission	1st Aug CIBSE Submission	Duration	
1st Oct	1st Apr	2 Months	Establish requirements for application. Refer to AECOM CIBSE Handbook, CIBSE website etc. Liaise with Sponsor. Contact T&D team if you and/or your Sponsor need any help finding the relevant information. Write report.
1st Dec	1st Jun	1 Month	Submit draft report to Sponsor for initial review, feedback and discussion. Revise report.
1st Jan	1st Jul	2 Weeks	Submit report to Sponsor for final review.
Mid Jan	Mid Jul	2 Weeks	Submit application to CIBSE, aiming for 2 weeks ahead of final deadline.
1st Feb	1st Aug		CIBSE submission dates
CIBSE to advise	CIBSE to advise		If CIBSE are satisfied with your report they will advise a date for interview.
To suit CIBSE date	To suit CIBSE date		Prepare presentation for interview.
To suit CIBSE date	To suit CIBSE date		You should arrange to have a mock interview preferably with two members of staff that are familiar with the process. Try and arrange this with your Sponsor. Contact the T&D team if you need help finding people to do this.

Approximate dates and activities around the two annual CIBSE submission dates:

The above is a guide which allows plenty of time for the development of your report, liaison with your Sponsor and time for your Sponsor to review and provide feedback. It's best if you can pick your own timescales/deadlines to suit you, considering the above, and agree with your Sponsor before you start.

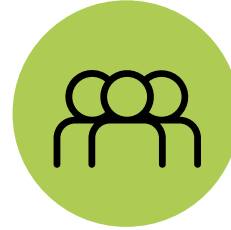# Mock Interviews

Why are they useful?

Who attends these?

How do I get one booked in for my candidate?

Mock Interviews

Why are they useful?

"I received essential feedback points from my mock interview, including where and how to stress major achievements that hit the competencies required"

"Sitting an internal mock interview in advance of my CIBSE IEng interview was hugely beneficial in preparing and fine-tuning my presentation"

"The mock interviews were incredibly useful. The mock interviewer was able to give me information on how the real interview was going to be as well as pointers on how to make my presentation better."

"If you do have an interview coming up, a mock interview is definitely worth it"

Who attends these?

Your mentee + 1 or 2 mock interviewers

The list of available mentors is on the MSTeams site…

LINK

MF General	Posts	Files ⌄	UK-SPEC Requirements	Engineering Council

+ New ⌄   ↓ Download   🗑 Delete   Move to   📄 Copy to

Documents > **General**

📄	Name ⌄		Modified ⌄
📁	Archive		December 23, 2021
📁	EmailMessages_5_2022		May 5
📁	Meeting Recordings		November 15, 2021
📊	MASTER Mentor List.xlsx		June 23
📄	MOCK INTERVIEW GUIDANCE NOTES.docx		November 15, 2021
✓ 📊	Mock Interviewer List.xlsx	…	April 27
📄	New-2021-Objective-Achieved-Report-Tem…		May 12
📊	Useful Contacts.xlsx		April 27

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Mentoring

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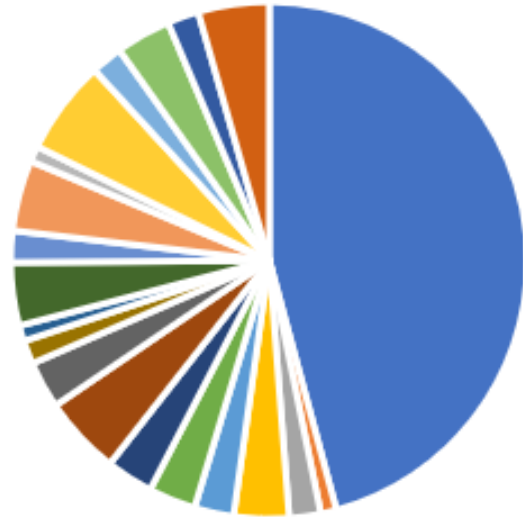# Our Approach

Mentor Pairing

Trainee reports

Submitting feed back

- o Discuss and advise on finding a mentor and how it works.
- o We oversee and push for excellence in our trainees' reports
- o If required, we provide additional feedback from the Leadership team on reports
- o Advise on upcoming webinars, posting on Sharepoint / YEF

Mentoring and Mentor Forum

Number of UK&I Mentors - 203 Active

- London & Surrounding
- Basingstoke
- Bangalore
- Belfast
- Birmingham
- Bristol
- Cambridge
- Cardif
- Chesterfield
- Dublin
- Edinburgh
- Exeter
- Glasgow
- Leeds
- Liverpool
- Manchester
- Plymouth
- Swindon
- York
- Unknown Locations

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What's Next?

Training Programme

Site Experience

Apprentices

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Any Questions?

Thank you

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