

ICE 3006A

Continuing Professional Development (CPD)



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To supplement this document ICE has placed on its website **ice.org.uk** a number of Membership Guidance Notes (MGNs) which give more detailed practical advice on a number of issues regarding membership. A list of current MGNs appears in MGN 0.

Revision A – no criteria have been modified. Changes relate to procedures. Principal changes are: amendment of recording from days to hours; six hours of effective learning time equals one day; update of MGN 39 with ICE 3190.

'... it is accordingly of importance that there should be a ready means heretofore of ascertaining persons who by proper training and experience are qualified...'

Extract from Royal Charter

ICE values the diversity that individuals with differing backgrounds and abilities bring to the Institution; it respects all members and applicants through fairness, tolerance and consistency of professional standards; ensuring that professional qualification and membership of ICE is open to all who meet its standards.

1. Introduction

This guide seeks to inform ICE members about current approaches to CPD, and to provide advice and guidance on how members can best make their CPD as effective as possible.

2. Why our CPD is essential

For civil engineers to compete and succeed in the global marketplace, its workforce must perform to world class standards. This will be possible only if each of us continuously maintains and improves our technical, managerial and professional competence.

In the construction sector, legislation in all areas is becoming more complex and ever-changing. This is particularly true in respect of health & safety, environmental management, and commercial and contractual practice. These complex changes are taking place against a background of an increasingly litigious business culture. If professionally qualified civil engineers become involved in such litigation, they are likely to have to prove their current competence. Each of us, therefore, will be at risk professionally if we don't maintain – and are able to produce – adequate CPD documentation when it is needed. ICE's code of professional conduct is there for our protection – as long as we comply with it. ICE has a duty to monitor the CPD of its members; we have a concomitant obligation to provide evidence of our CPD activities when this is asked for.

3. Current practice in CPD

The idea of organised, systematic CPD is a comparatively young one, and good CPD practice is still developing. But we have moved on from the initial notion that "CPD is a good thing", and that we should merely keep a record of the CPD that we do.

The definition of CPD adopted by the construction sector is:

"The systematic maintenance, improvement and broadening of knowledge and skills, and the development of personal qualities necessary for the execution of professional and technical duties throughout your working life."

Rule 5 of ICE's rules of professional conduct states:

"All members shall develop their professional knowledge, skills and competence on a continuing basis, and shall give all reasonable assistance to further the education, training and CPD of others."

At the heart of good CPD practice lies the truth that investment in your own learning and development is the most important investment you can make – so it is worth taking time out to make the best of it.

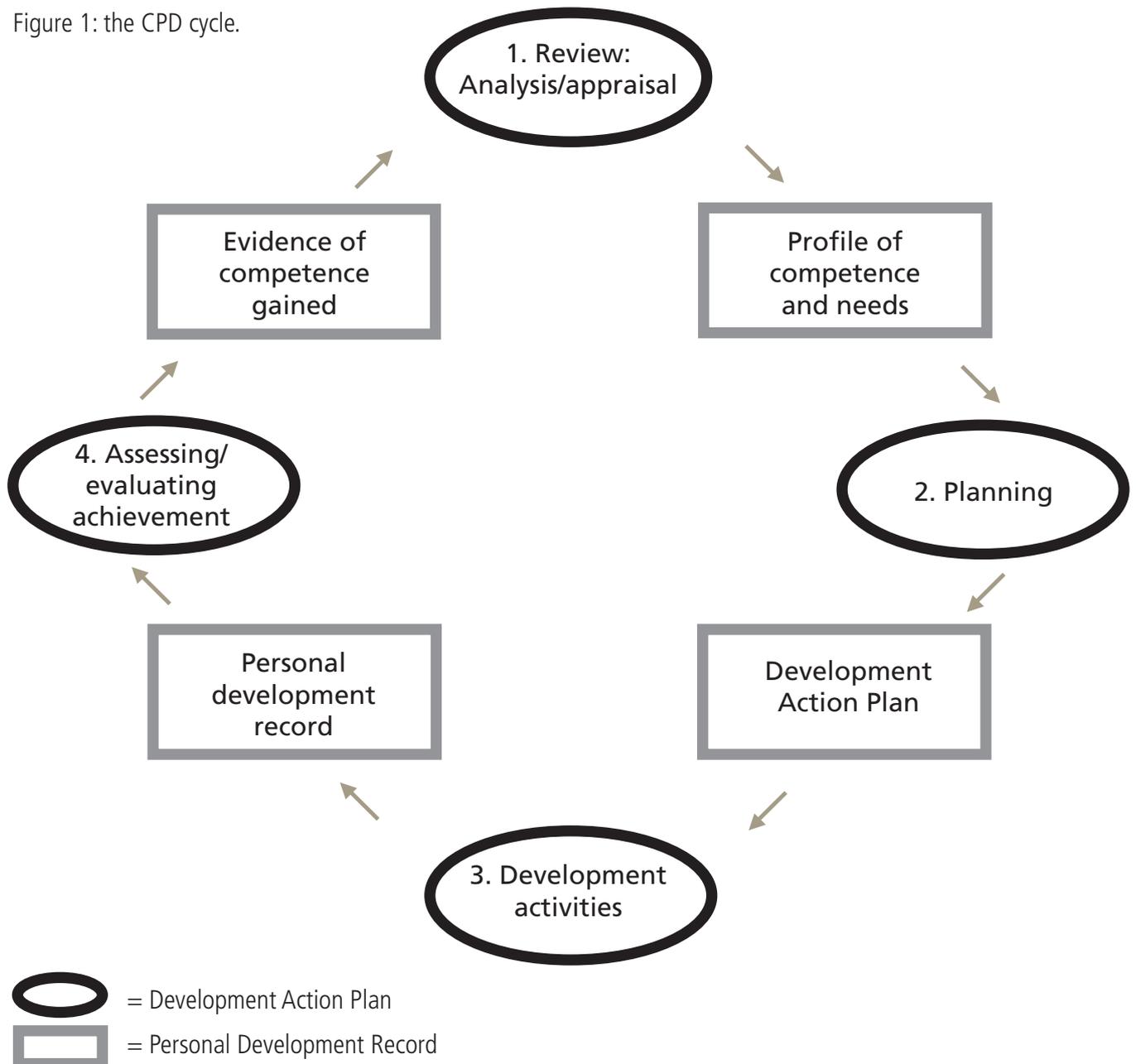
How much CPD should you do? In the past, ICE indicated that five days per year was the requirement, and this is a good minimum guide for those preparing for the Professional Review. But the profession has moved away from time-serving. For those who are qualified ICE members, a more mature answer is: *"Enough to develop and maintain the professional knowledge, skills and competence that you need"*.

It is possible to register CPD online using the recording system within MyICE.

4. The CPD cycle

The currently recommended approach to CPD treats the process as a cyclical experience. This is shown in Figure 1.

Figure 1: the CPD cycle.



There are many different ways in which your plans and records can be documented. If your employer gives you regular performance appraisals, these records can represent your CPD activities, as long as they identify the four key stages in the CPD cycle. If not, ICE suggests a format that you can use – see Appendices A & B, and Form 3 190 on the ICE website.

5. Development Action Plan

Your Development Action Plan will work best if it combines the first two steps of the CPD cycle – your review and your plan.

5.1 Review

First, you should review your recent performance: identify both your current competences and also the areas where you need further learning and development. A SWOT (strengths, weaknesses, opportunities, threats) analysis is a useful tool when undertaking this review. This analysis should take a balanced account of different aspects of your needs: examples include short-term/long-term development goals; and both “hard” (technical) and “soft” (behavioural) components of performance.

It is also important to recognise objectives other than your own – eg what your employer needs, and what ICE, society and the law expects. If you have a periodic staff appraisal this will be an excellent stimulus and framework for this review. Further examples of areas for development are to be found in the Appendices.

5.2 Planning

Having prioritised your CPD needs, you should draw up a plan of how these are to be met. This will include consideration of possible activities, necessary resources and appropriate timescales, and should also decide how successful outcomes will be recognised. “Resources” will be wide-ranging, and might include advice from colleagues, secondments/assignments, books & journals, the internet, open/distance learning material, conferences and courses. The cheapest, and often the most effective, CPD is on-the-job learning. The key is to recognise this as CPD.

A suggested format for your Development Action Plan is shown in Appendix A. You will decide how often this review/plan should take place, but ICE advises that it should be done at least annually.

6. Personal Development Record

Your Personal Development Record will work best if it combines the last two steps of the CPD cycle – the records of your CPD activities, and their evaluation.

6.1 Development activities

The next stage is to put your plan into practice. If you take your personal learning and development seriously, you will find that you experience different sorts of CPD: the activities that you plan and carry out; and the unplanned CPD opportunities that you spot and exploit. Both types of CPD are valuable and their combination will help you develop habits of curiosity and exploration; good CPD becomes addictive! Further guidance on development activities are to be found in the Appendices.

As a guide, one day of CPD can be considered to be six hours of effective learning.

6.2 Evaluation

Once you have carried out your CPD, it is important not only to record it, but also to identify what you have learned and to evaluate the benefits you have gained. This will also be a good test of your CPD plan. Again, your staff appraisal should be helpful in this evaluation, and your employer may have good documentary procedures.

An example of how you might record and evaluate your CPD is shown in Appendix B.

7. Support for your CPD

As we have seen above, if your employer gives you regular performance appraisals, these can provide good CPD documentation, and will take place within a framework of training support. However, many civil engineers don't enjoy this benefit; or they may be self-employed. This means that they must take more personal responsibility for their own learning and development.

8. Summary

This then completes the first journey round the CPD cycle. By now you will have acquired new learning and development needs, and so the process re-iterates itself.

You can see that your Development Action Plan links to your Personal Development Record. It is recommended that each objective for improvement in the Plan should be followed up by what you actually did to achieve that objective in terms of development activities and evaluation within your Personal Development Record.

As your CPD practice matures, you will be aware of the different roles and influences adopted by the key stakeholders in the construction sector. At the centre, you will set your goals and motivate and manage your CPD. Your employer will provide much of the necessary resource, and will help with your planning and evaluation. You will make use of education and training programmes as necessary. ICE will provide advice and guidance, and will monitor the CPD activities of its members. Construction clients will increasingly demand from their contractors evidence of the CPD of their staff. And government will create the policy frameworks in which all this activity takes place. Figure 2 shows these relationships.

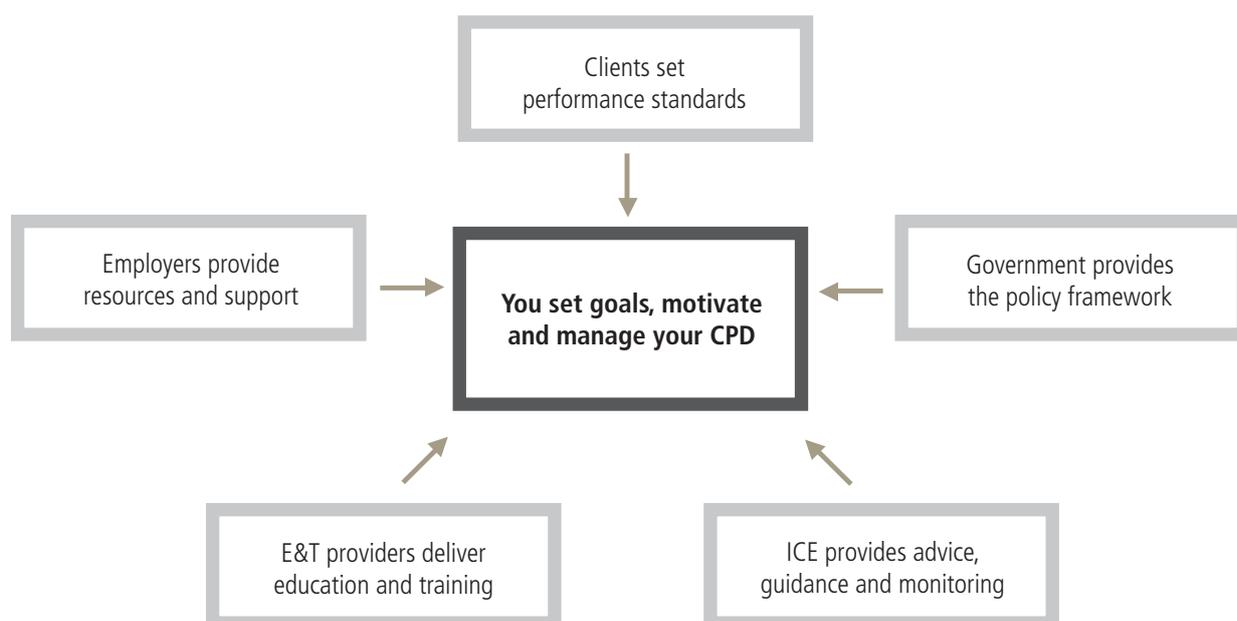


Figure 2: The key stakeholders in your CPD.

Appendix A

Example of CPD Development Action Plan

CPD DEVELOPMENT ACTION PLAN

Name:

Job role and responsibilities: Contractor’s Site Section Engineer responsible for £50m of harbour works and 100 staff and subcontractors

Review of Learning Needs					Development Plan			
Date	Ref	In what area do I need to improve my performance?	How does this link to other objectives (eg employer, ICE, etc)?	What do I need to learn in order to achieve this?	What will I do to achieve this?	What are the likely resources and support that I will need?	How will I evaluate a successful outcome?	What are my deadlines for meeting this target?
01/02/09	1	Team management skills	Employer requirement and career development	Principles and practice of team management	Talk to mentor In-house course Study best practice examples	Book on in-house course – need mentor support Published learning material – see employer	Application of improved team management skills	Dec 09
03/02/09	2	Improve knowledge of NEC form contract	Needed by employer Efficient commercial operations	Details of NEC	Learn from colleagues Private study Attend a course	Cost of documents – discuss with employer Course fees – discuss with employer	Knowledge and application of NEC in practice	Dec 09

It is anticipated that four key learning areas would be identified for each year

Appendix B

Example of CPD Personal Development Record

CPD PERSONAL DEVELOPMENT RECORD

Name:

Job role and responsibilities: Contractor's Site Section Engineer responsible for £50m of work and 100 staff and subcontractors

Development Activity				Evaluation		
Details of CPD activity	Dates	Effective learning time	Dev. plan ref.	Key learning points	Key benefits/value added	Further comments: was the plan successful? How can I improve it in future?
Team management: In-house seminar	01/08/09	6 hours	1	Understanding of the theory and practice of team management	Able to change management/leadership style depending on the needs of the team	Good staff appraisal. Ready for more management responsibility
Practical application of skills on the job	21/11/09 to 25/11/09	30 hours			Aware of the importance of recognising different individual needs within the team	Need to feedback to mentor, and develop this competence further
NEC Private Study and Reading	22/09/09	6 hours	2	Introduction to the philosophy and principles of NEC	Good understanding of NEC principles. Good pointers for further study	Need to talk to colleagues, and develop this knowledge in practice
NEC knowledge from project management	Sept to Dec 2009	12 hours	2			(For consideration for transfer to next DAP)

Example subject areas for development

The following list of subjects and topics is provided as an aid to members identifying their development needs. Please note that this list of subjects and topics is not exhaustive and other subjects and topics may be considered to be appropriate by the Institution when justified in development terms.

Self Development

- Interpersonal skills
- Leadership and team management
- Decision making
- Stress management
- Time management and delegation skills
- Career development and planning
- Foreign languages
- Professional ethics and rules of conduct

Communication

- Report and letter writing skills
- Interview skills
- Negotiating skills
- Managing meetings
- Information management
- Presentation skills
- In house, to clients, at public meetings

Strategic Management

- Establishing practice strategy and developing business plans
- Improving employer's performance – business improvement
- Health and safety legislation, policy and procedures
- Quality assurance and quality management
- Environmental management
- Employee relations and human resource management
- Diversity management – EO & DDA
- Training and development of others

Technical

- Detail design
- Environmental design/technology/impact analysis
- New design skills
- Procurement – estimates, bids and tenders
- Construction site management
- CAD
- Energy efficiency/energy conservation
- New building materials
- New forms of contract and partnering

Legislative

- Construction regulations
- Construction contract law
- Health and safety legislation
- Environmental legislation
- Employment legislation
- Different forms of contract – adversarial, partnering, PFI, DBFO

Associated Professional Areas

- Adjudication
- Architecture
- Arbitration
- Facilities management
- Planning supervision
- Project management

Working With Others

- Team leadership
- Motivation skills
- Negotiation skills
- Delegation skills
- Managing poor performance
- Performance appraisals

Commercial Practice

- Client care and management
- Marketing skills and techniques
- Public relations; dealing with media and VIPs

Information Technology

- Information Technology:
In house systems; external computer services;
personal computing skills; specialist software

Contract Management

- Financial planning and management: reporting systems; establishing a budget; cost control systems; cash flow; profit and loss account; balance sheets; VAT and taxation; project finance; EU and government grants
- Procurement procedures
- Contract management
- Terms of appointment and contract administration
- Risk management
- Disputes resolution

Specialist Interest Areas

- Energy
- Environment and conservation
- Ground
- Maritime
- Public sector / municipal
- Research and innovation
- Structural and building surveying
- Transport
- Water
- Virtual design
- Urban planning and design

Health, Safety and Welfare

- Legislation
- Evaluation of role of Health and Safety Executive (HSE)
- Personal responsibility for Health, Safety and Welfare
- Confidential Reporting on Structural Safety (CROSS)
- Standing Committee on Structural Safety (SCOSS)
- Management of Health, Safety and Welfare in design
- Management of Health, Safety and Welfare on site
- CSCS scheme

Appendix D

Example development activities

The following activities may be recognised by the Institution of Civil Engineers as CPD activities. Please note that this list of activities is not exhaustive and other activities may be considered to be appropriate by the Institution when justified in development terms.

- Learning on the job
- Peer guidance and discussion
- In-house presentations
- Attending trade exhibitions and systematically gathering information and knowledge to develop as an engineer
- Structured reading (test your understanding of the reading material)
- Work shadowing to add to your stack of knowledge and expertise for routine tasks
- Promoting engineering in primary and secondary schools
- Technical presentations
- Writing reports / writing for publication
- Preparation of CPD presentations to colleagues and other professionals
- Exposure to new situations at work which require action
- Participating in careers conventions
- Job secondment
- Regional ICE Events
- Watching training films and television programmes including the Civil Engineers Channel from TEN
- Listening to training CDs for research purposes and technical information
- Participating in Institution activities such as acting as a Reviewer, a Student Liaison Officer or membership of committees where new initiatives and ideas are discussed
- Sharing knowledge and expertise with others
- Allied professional events
- Acting as a coach or mentor for a fellow professional
- Lecturing at organised events
- Research both on the job and for further qualification
- Teaching (for those not in teaching post)
- Self study through reading text books or study packs
- Personal learning from the internet
- Validated and Accredited qualifications
- Formal distance and open learning courses
- Courses, conferences, seminars and workshops

Useful Contacts

Admissions and Processes

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Education and Learning

+44 (0)20 7665 2247

ICE Regions

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Application dates and dates of interviews can be found at
ice.org.uk/membership

Acronyms

AMICE

Associate Member of the Institution of Civil Engineers

AMPR

Associate Member Professional Review

AQP

Academic Qualifications Panel

AVQ

Advanced Vocational Qualification

BEng

Bachelor of Engineering

CA

Career Appraisal

CDM

Construction Design Management

CEng

Chartered Engineer

CEnv

Chartered Environmentalist

CEPR

Chartered Environmentalist Professional Review

CPD

Continuing Professional Development

CPR

Chartered Professional Review

DAP

Development Action Plan

DE

Delegated Engineer

DO

Development Objective

ECO

Engineering Council Organisation

Eng Tech

Engineering Technician

EU

European Union

GNVQ

General National Vocational Qualification

HS&W

Health, Safety and Welfare

ICE

Institution of Civil Engineers

IEng

Incorporated Engineer

IPD

Initial Professional Development

IT

Information Technology

JBM

Joint Board of Moderators

MDO

Membership Development Officer

MEA

Mutual Exemption Agreement

MEng

Master of Engineering

MGN

Membership Guidance Note

MICE

Member of the Institution of Civil Engineers

MPR

Member Professional Review

MRA

Mutual Recognition Agreement

NVQ

National Vocational Qualification

PDR

Personal Development Record

RD

Regional Director

RGN

Register Guidance Note

RST

Regional Support Team

SCE

Supervising Civil Engineer

SE

Supervising Engineer

SVQ

Scottish Vocational Qualification

TMICE

Technician Member of the Institution of Civil Engineers

TPR

Technician Professional Review

TR

Training Review

TRR

Technical Report Route

VCE

Vocational Certificate of Education

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ICE 3006A, v3, Dec 2010

'..it is accordingly of importance that there should be a ready means heretofore of ascertaining persons who by proper training and experience are qualified...'

Extract from Royal Charter