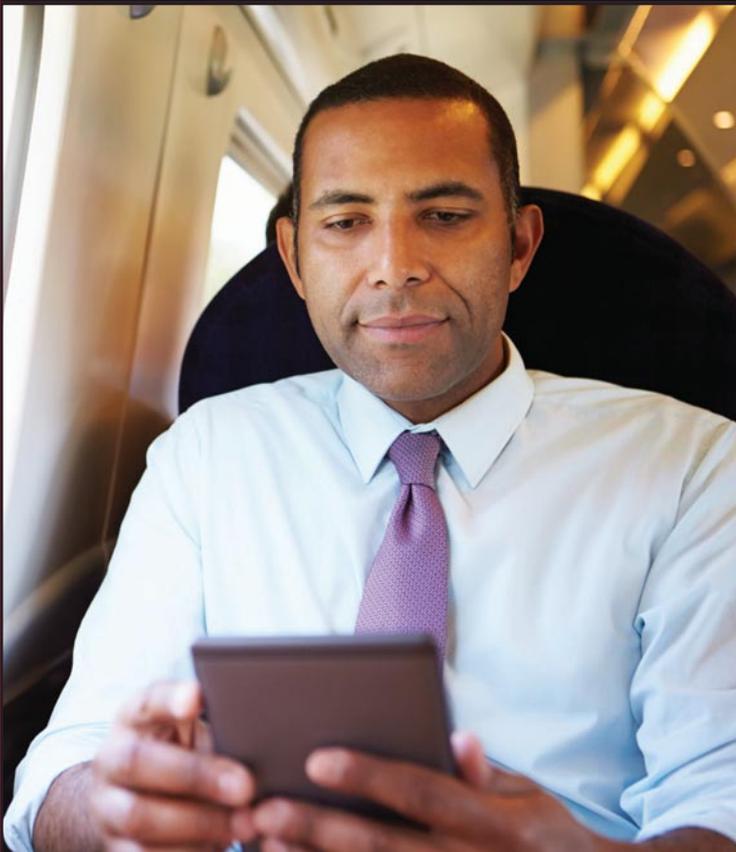




YOUR GUIDE TO CONTINUING PROFESSIONAL DEVELOPMENT



CPD will be mandatory for all members* of Engineers Ireland, in line with best international practice, from January 1st 2017. A minimum of 5 days / 35 hours CPD will be required per annum, involving a cycle of planning, recording and reflection.

This document is a guide to inform members about the key principles of CPD in order to ensure that as a member your professional development activities are of real value to you. This guide should be read in conjunction with the Engineers Ireland Code of Ethics which documents the standards of ethics and conduct set by Engineers Ireland, applying to all members, at all career stages.

What is CPD?

Continuing Professional Development (CPD) is timely professional updating. It is the process of learning for professionals. A definition of CPD is:

“The systematic maintenance, enhancement and development of knowledge and skill, and the development of personal qualities necessary for the execution of professional and technical duties throughout the practising engineering professional’s career.”

CPD is especially concerned with development of real value to the professional. Learning something new, which is of little or no professional value, cannot be deemed to be CPD.

On joining Engineers Ireland, all members make a fundamental commitment to ongoing self-improvement. It is this underpinning ethos – the professional obligation to learn – that is a decisive contributor to the credibility in society of the engineering professional and the engineering profession.

There are many ways in which you, as an engineering professional, can learn. Overall, your CPD records should show

a balance between formal classes and lectures, interactive activities, ‘knowledge events’ such as conferences, Engineers Ireland sector meetings and ‘learning events’.

These are events where there are identified learning outcomes and delivery is such that learning of new knowledge and/or skills can be assured e.g. some seminars, courses, and formal tertiary education.

A significant proportion of CPD activities, for senior professionals, are likely to be under the heading of services to the engineering profession or broader community.

Another medium where engineers can gain CPD is through networking and dialogue with Engineers Ireland, other professional bodies and other engineering professionals. This is particularly important if you are working in isolation and there is little opportunity to meet and mingle with other engineering professionals within your day-to-day working environment.

Knowledge workers, including engineers, scientists and computing specialists, are the fastest growing industrial sector

* All non-student members.

WHY IS CPD IMPORTANT?

globally. Graduates enter the workplace with valuable skills and knowledge, however at this stage of their career they are less aware of the significance of constantly changing skill-sets, activities, relationships, and behavioural adjustments they will need to manage, if they are to remain highly-valued contributors throughout their career.

By carefully planning your CPD at this stage, you can bring about the necessary advancements in the required competences to help sustain career-long high performance

One very important reason to keep up to date with CPD concerns the so-called 'half-life' of engineering education which relates to the fact that technical knowledge becomes outdated. Engineers who do not engage with CPD may come to rely on outdated knowledge or outmoded techniques to practice their profession.

By allowing market trends and new technologies to pass them by, it will lead to 'professional obsolescence'. Recent research has cited that the 'failure to learn' is the greatest cause of corporate downfalls in recent times, more so than hard-to-predict technological advancement or disruptive innovations.

There are five main factors which contribute to professional obsolescence for engineers at present:

- rapid expansion of technology
- rapid turnover of technology
- globalisation and cost competitiveness
- increasing interdisciplinarity
- emergence of new technology/market trends/legislation

The best way for you to overcome these factors and ensure a sustainable life long career is to ensure:

- You are equipped to continuously upskill
- You are able to adeptly source new knowledge
- You are capable of adopting creative and novel approaches

Systematic CPD is clearly the best means for you to keep pace with both incremental and major step-changes in a knowledge-based society and to avoid "professional obsolescence".

A minimum of 5 days / 35 hours CPD will be required per annum

1 day of CPD = 7 hours of CPD

WHAT COUNTS AS CPD?

Below, there is a guide which has been built up by Engineers Ireland over many years, representing the main means by which engineering professionals complete their CPD. Your CPD requirements will change as you go through your career. To find out more about matching your CPD to your career stage please see the Appendix A.

CPD ACTIVITIES

TYPE	CPD DAYS (MAXIMUM CLAIMABLE PER ANNUM)
Classroom training	actual duration
Lecture series / lunch 'n' learns	actual duration
Computer-based course / e-learning	actual duration
Formal induction training	actual duration
Teaching classes	class duration + material-preparation time
Knowledge sharing activities	actual duration
Mentoring either as Mentee/Mentor	up to 1 day per annum
Publishing journal article /book review	up to 1 day per annum
Structured Reading	up to 2 days per annum
Benchmarking or Site Visits (e.g. to site/conference/installation)	actual time of visit

PROFESSIONAL INSTITUTION / STATUTORY BODY ACTIVITIES

TYPE	CPD DAYS (MAXIMUM CLAIMABLE PER ANNUM)
Attending a relevant lecture	actual lecture time
Participating on a committee, task force	up to 3 days per annum
Preparing and delivering a paper / presentation	up to 3 days per annum
Visiting schools/colleges to promote engineering	up to 2 days per annum
Volunteer work	up to 2 days per annum
Successful application for Registered Professional Title (Chartered Engineer, Associate Engineer, Engineering Technician, Fellow)	up to 1 day per annum

CONTINUING ENGINEERING EDUCATION (CEE) / POSTGRADUATE ACADEMIC COURSES

TYPE	CPD DAYS (MAXIMUM CLAIMABLE PER ANNUM)
Bachelor's degree/ Masters Programme/PhD	up to 25 days per annum
Diploma	up to 20 days per annum
Certificate	up to 15 days per annum

Note: Courses or seminars should ideally be quality approved as CPD for engineering professionals, run by an engineering institution or an approved training provider. Topics can include specific technical subjects, sector specific subjects or generic training.

Academic contributions

The CPD records of engineering academics will have to provide evidence that you have been networking with engineers practicing outside of the education sector. This could be through consultancy work, acting as an expert witness or when your research and teaching takes you into industry.

'On-the-job' CPD

While this is applicable to all professionals, it may be more pertinent to engineers working in smaller-sized organisations and the self-employed. We would encourage employees in very small-sized organisations – and the self-employed – to think about how you can record valuable

How to plan your CPD

CPD that has happened during the course of your work. To do this, you must identify the non-routine elements of your work which have been CPD for you i.e. it can't be CPD if it was your usual work routine and you learned nothing. Think about: new desktop research, actual research, new investigations, specific 'stretch assignments' delegated to you, engineering works carried out on a voluntary basis for a local organisation you are a member of etc. You can still comply with the CPD requirements of Engineers Ireland by presenting evidence of new and non-routine work elements. You may be asked to provide a referee for CPD of this nature i.e. the client you worked for etc.

As mentioned previously, carefully planned CPD can help sustain career-long high performance. There are many options for engaging in and benefiting from CPD. Evidence from professional organisations internationally suggests that a development action plan of some form is the best process for supporting CPD.

Periods covered by each development action plan may vary but the plan should be reviewed at least every six months. It may be helpful for reviews to be done with a professional colleague or mentor.

Each development action plan should address:
Optimising how 'to do' CPD is a matter of organisation, planning and reflection.

You will understand WHAT to do, or which type of CPD activity to choose, once you have conducted the development action plan process.

The Engineers Ireland 'Code of Ethics' offers some guidance with regard to options for completing CPD, stating:

"In furthering their professional development, Members shall avail of opportunities for: attendance at postgraduate education programmes, reading of technical literature, attendance at professional meetings and seminars and involvement in Engineers Ireland's Boards, Committees and other groups. They should seek also to contribute to seminars and lectures and should encourage Members for whom they have responsibility to do the same."

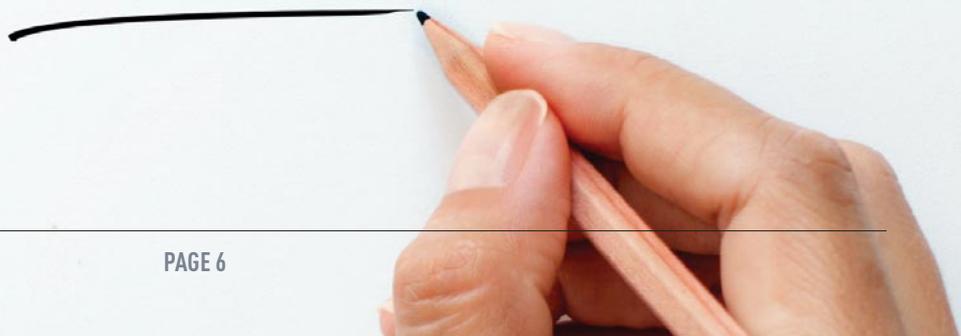
However, if your development action plan is well-considered and appropriate, then quality CPD will result, so don't be afraid to think laterally and to try CPD activities which best match your plan, your personality and your unique personal situation and style.

How to reflect on your CPD

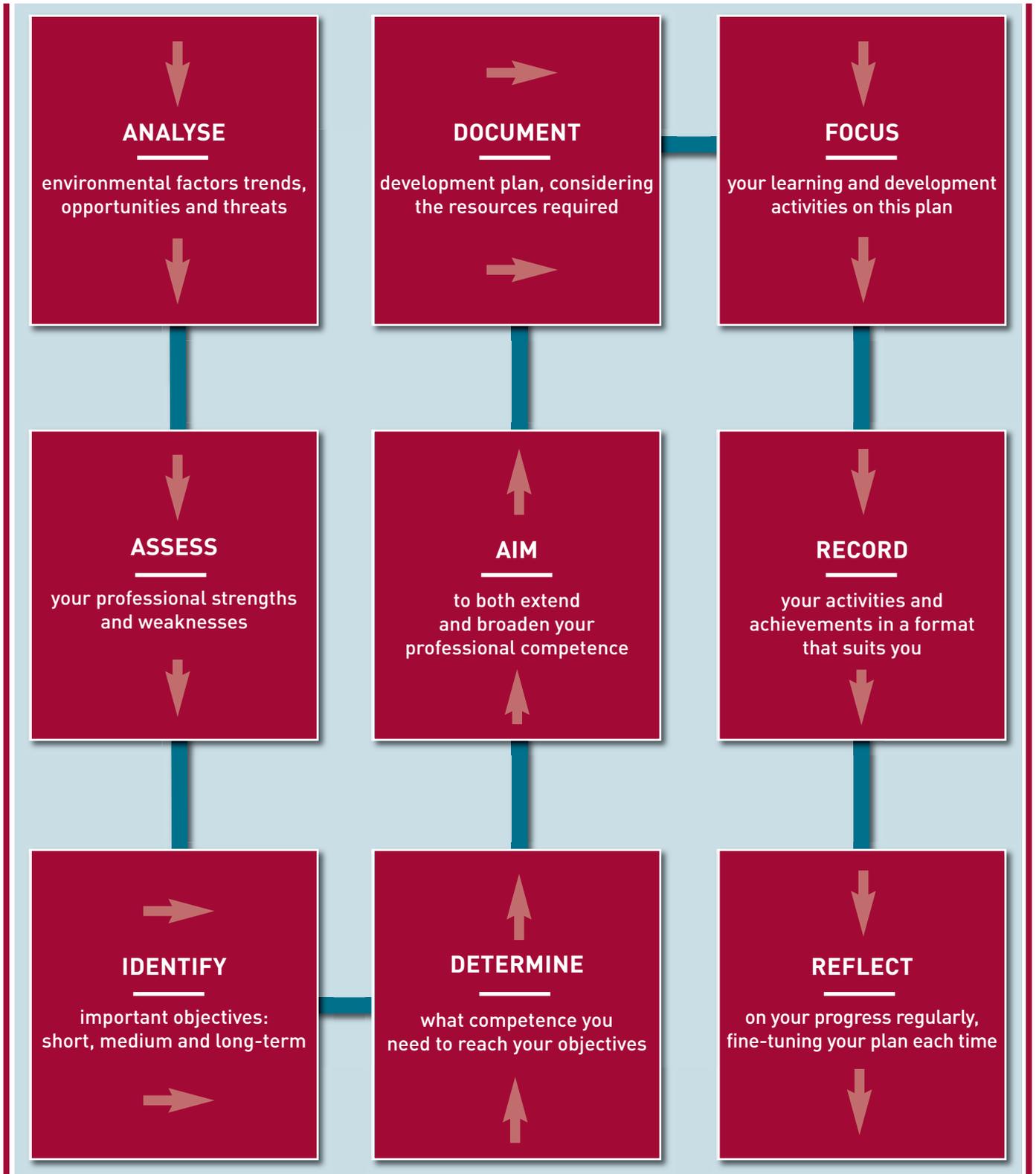
In order to gauge the individual learning outcomes, which are of most value, you, the learner need the capacity to be a "reflective practitioner." Reflective practice is the capacity to engage in a process of continuous assessment with regard to the professional development value of your experiences.



Strategy



THE FOLLOWING DEVELOPMENT ACTION PLAN PATH IS SUGGESTED:



What will happen in

2017

What will happen in 2017?

CPD will be mandatory for all members of Engineers Ireland, in line with best international practice, from January 1st, 2017. A minimum of 5 days / 35 hours CPD will be required per annum, involving a cycle of planning, recording and reflection.

This process will be available online and guidelines and supporting documents will be available to all members. The CPD you present should show how you have taken reasonable steps to maintain your competence in all parts of your practice area, and across the full range of competence elements.

CPD requirements for members

You will need to complete a minimum of 5 days (35 hours) of CPD activities per year. A minimum of 1 day (7 hours) of this CPD will

need to be verifiable e.g. records, certificates, assessment results. You will need to record your CPD online by the end of each calendar year using the Engineers Ireland online platform.

How CPD will be captured

Each member will need to maintain their online CPD plan and records on Engineers Ireland's Membership System. This will include your CPD Plan, CPD records and CPD reflections on learning outcomes.

You will be required to make an annual end of year declaration confirming you have complied with CPD requirements and have maintained your knowledge of professional ethics. Engineers Ireland will monitor compliance by auditing a sample of up to 5% of members annually.

APPENDIX A

CPD to match each step of your career

What engineering professionals at different career-stages actually do to stay competent (i.e. how you learn) in the face of the rapid expansion of scientific and technological knowledge, globalisation and increased interdisciplinarity is not uniform across all career stages. While the table below suggests progression from one stage to another, not all professional engineers have to progress through all four stages over the course of their career.

The need for CPD to avoid professional obsolescence is actually of sustained importance throughout your entire career as you move from the predominantly technical realm, to the equally challenging realms of people, project, research and business-management.

The table is a general guide which highlights what the 'look and feel' of CPD may be like for professional engineers and technicians at various career-stages.

CPD RESOURCES MATCHED TO DIFFERENT CAREER STAGES

	STRUCTURED OPPORTUNITIES	INFORMATION MATERIAL	INTERPERSONAL EXCHANGE	FOCUS
GRADUATE	Visible and ample opportunities; CPD is long duration (e.g. courses, training programmes, job rotations, further education).	Reading from a broad range of sources, CPD is visible and during work hours.	Buddying and instruction; guidance from colleagues and peers in order to learn to do the basics better. Job shadowing is a common choice.	Narrow, disciplinary, accepting of norms and standards
KEY CONTRIBUTOR	Structured and planned; perhaps shorter and more targeted (e.g. specialist courses; lectures, seminars; lunch 'n' learns; site visits; stretch assignments; special projects; postgraduate education programmes).	Reading and sourcing at this stage including recommendations from team and network; learning where to source knowledge more efficiently is a key skill.	Coaching from supervisor or manager is increasingly common-place; mentoring (both technical and non-technical); learning from team and through cross-functional teams is also of value.	Wider, more multi-disciplinary; challenging perceived wisdom
MANAGER-MENTOR	CPD generally; takes the form of more prestigious events (e.g. conferences, symposia, benchmarking visits; presenting papers; tech blogs; committees and taskforces; research projects; advanced-level educational programmes).	Material is increasingly sourced via recommendations from subject-matter-experts and other experts; reading is used to top-up knowledge; latest research and trends are digested using horizon scanning methods.	Close bonds with other managers and select social network of experts, internally and externally, who help deep, learning relationships to flourish. Can be active both as a formal mentor and often as a mentee too, use of informal mentors; multi-rater feedback is commonly used.	Promoting high standards while also pushing boundaries through creativity
STRATEGIST-LEADER	Hones leadership traits and behaviours on-the-job as well as through specialist training programmes / further education. Makes significant contribution back to organisations and society in general as a role model through professional bodies, national agencies etc.	Contributes to forums, debates, guest lectures and publications as an acknowledged thought-leader who aims to inspire others. Will play a central role in developing strategy / policy documents which will motivate, guide and inspire others. Reading science, technology, business and management publications.	Acts as a role model, often guiding the next wave of top leaders in an organisation or sector or through organisational, regional, national and international programmes. Leaders at this level will often tap into an informal network of other leaders from across industry to 'sound out' ideas with and to guide their strategic thinking.	Has highly-honed characteristics with recognised clarity of vision and values; promotes 'the joy' of engineering

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