CIC BUILT ENVIRONMENT PROFESSIONS TOGETHER

2023

# **Embedding Sustainability and Climate Literacy in Education and Professional Qualification:**

A Construction Industry Council (CIC) Toolkit

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- Institution of Fire Engineers (IFE)
- Institute of Specialist Surveyors and Engineers (ISSE)
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# Introduction

With the UK construction industry contributing as much as 40% of total national emissions, the construction and built environment sector has a very significant role to play and needs to act now to put in place the necessary measures to be able to meet its obligations towards the UK achieving its targets to reduce energy demand and carbon emissions, including achieving the UK's 2050 net zero carbon emissions target.

The Construction Industry Council's Climate Action Plan, launched in June 2021, seeks to support and enable professional institutions in the construction and built environment sector to take a lead and, through its membership, actively contribute to and tackle the challenge of climate change.

Working collaboratively and sharing practice are key principles and immediate priorities for the action plan, with this toolkit being a resource for professional institutions to consider how they might implement changes, or devise a complete programme of activity, to place sustainable practice and climate literacy at the heart of the education and qualification of professionals, whilst considering ongoing competence of those who are professionally qualified.

The medium-term objective is for the professional institutions to enable all construction and built environment professionals to become energy/carbon advocates – whatever their discipline.

In the longer-term the great majority of built environment professionals; properly supported by legislation and standards, guidance, tools, training and education; must be fully able to apply sustainability practice and achieve net zero carbon reduction targets for all their projects.

This will be mirrored in the far greater regulatory focus on continuing professional development (CPD) and competence that the new, post-Grenfell, building safety regime will introduce.

## Education and Qualification

Workstream One, Education and Qualification, of the CIC Carbon Zero: the professional institutions' climate action plan focuses on sustainability and climate literacy in the areas of education and training, professional qualification and the ongoing CPD of registered professionals.

A number of short- and medium-term actions were levied on the professional institutions and broader stakeholders within the CIC's action plan, these being:

| **Actions for Professional Institutions (PIs)** | |
|---|---|
| a. | Each PI will determine their respective member roles, scope and responsibilities for carbon reduction |
| b. | Each PI will review learning outcomes and the accreditation requirements of relevant degree and training courses |

| | |
|---|---|
| c. | Individual PIs to adopt and update discipline-appropriate CPD requirements for net zero skills and competences for their members |
| d. | The PIs will work together (and with other relevant bodies) to share and implement their educational proposals |
| e. | The PIs will work towards making ongoing CPD on climate issues obligatory for all chartered PI members alongside the introduction of statutory mandatory CPD under the new Building Safety Regime |
| f. | PI entrance requirements and professional membership assessments will be reviewed and revised, if required, to include a threshold carbon literacy/competence test |

| **Actions for the wider industry with support from the Professional Institutions** | |
|---|---|
| a. | The cross-industry climate framework curriculum to be agreed and adopted |
| b. | A shared CPD curriculum, based on the framework and including specialist sub-modules, to be established |
| c. | All institute and registration body agreement to be brokered for professional education to ensure climate change & biodiversity competence is achieved as a default requirement |
| d. | Training materials to be developed and shared, supported by the PIs |

In response to these actions, a range of interviews were undertaken with professional institutions during the summer of 2021, with additional 'deep-dive' workshops carried out, bringing the findings from the professional institutions together, and enabling discussion and the sharing of good practice.

The results being:

- Development of this toolkit to support professional institutions to stimulate thinking and activities in relation to sustainability and climate literacy in light of education and professional qualification; and
- Ongoing reporting into the CIC and Construction Leadership Council (CLC) on progress towards the targets set.

# Navigating this toolkit

This toolkit is divided into a number of sections, enabling professional institutions to select areas where they are considering engaging, communicating, and making changes to the professional qualification or CPD requirements in relation to sustainability and climate literacy.

Each section stands alone and can be referred to individually if your organisation has a particular area of interest, with these being summarised as:

- **The Case for Sustainability and Climate Literacy:** Implementing sustainability and climate literacy as standard for all built environment professionals
- **Education and Training:** Recognising and embedding sustainable practice and climate literacy within education and training programmes
- **Professional Qualification:** Ensuring professional qualification and review embeds sustainable practice and climate literacy
- **Continuing Professional Development (CPD):** Placing sustainable practice and climate literacy at the forefront

Within each section you can find information, case studies and activities which are designed to help stimulate thinking. These activities contextualise the issues discussed helping to draw lessons from practices across the built environment professional sector and putting these into action within your own organisation.

Although activities can be undertaken by individuals, some provide ideal stimulus material to consider broader engagement, be that internally within your professional institution or beyond, to members of your institution and to other stakeholders including education and training providers, employers, and even other professional bodies.

# Making the case for sustainability and climate literacy

Professional institutions within the built environment sector are uniquely placed to lead and enable professionals to play their role when it comes to tackling the climate emergency. Achieving net zero will require an industry wide investment in skills and training that must be early, planned and based on demand. That investment will also need to consider both the current and future professional workforce, and at all levels of competence.

The professional institutions will need to consider how they will communicate and engage members and other stakeholders to achieve the greatest impact, and to make the changes needed to prepare professionals to understand and enable them to address the climate challenges we now face.

This will require the professional institutions to work in tandem with their individual and corporate members, a broader range of employers, education and training providers, and Government.

**Case Study: Engaging Members around Climate Change and Sustainable Practice**

**Royal Institution of Chartered Surveyors (RICS): Building on Actions from an Inaugural Sustainability Report**

Over recent years, RICS has begun to much more prominently champion sustainable practices across the built and natural environment, the aims being to empower professionals to better measure environmental impacts and embed sustainability considerations into their work. During 2020, RICS engaged over 4000 of its global members, via surveys, round tables, committees and panels, to bring forward and publish its inaugural Sustainability Report in 2021.

The findings from the work undertaken identified where members and the broader sector needed most support, and where RICS must act in response to demand.

Through the engagement of members, RICS is now better placed to act on member priorities, which include:

- Leading and developing industry standards and data
  - Developing, publishing and promoting standards and guidance for industry
  - Building a carbon database
  - Developing, publishing and promoting consumer guidance
- Addressing changes to the education and competence of professionals
  - Making changes to the RICS Code of Conduct
  - Ensuring initial membership and professional registration products, such as the ethics module are updated to include sustainability

- Undertaking gap analysis to identify and understand where changes need to be made, and contextualised for each sector of surveying
- Ensuring underpinning competence includes the embedding of sustainable practice within all qualification routes, including pathways covering technical recognition and degree accreditation
- Understanding where knowledge and understanding (K&U) at entry levels needs to be raised for further and higher level professionals, where competence needs to be demonstrated via experience
- The development and introduction of mandatory sustainable practice CPD.

Note: These topics are in scope of two ongoing areas of work - RICS' review of entry and assessment, and RICS' review of post-qualification CPD requirements. Any proposed change is currently subject to further consultation with RICS members (January 2023).

The use of round tables and tasks and finish groups has already helped RICS to make initial changes, and to develop a plan to address remaining works.

In Autumn 2022, RICS approved a new 'Sustainability Panel' that is set to advise RICS, and its Boards and Committees, on climate change and sustainable practices, and to support RICS to take the lead in steering the built and natural environment towards decarbonisation.

The annual survey route for members was repeated once again in 2022, offering RICS and its members an annual update report, 'RICS Sustainability Report' released in September 2022. This being the first step into tracking and monitoring progress against key performance indicators (KPIs) and how it, as an institution, can respond to a global appetite for sustainable buildings.

Over recent years, the vast majority of professional institutions have made progress in light of sustainable practice, with:

- Codes of Conduct routinely stating the need for members to 'considering their impact on the environment' or to consider 'sustainable practices' when working,
- Guidance, documentary and web-based materials now available or recommended for members to access and use,
- Professional accreditation criteria for education providers routinely referring to the need to teach sustainable practice in terms of the discipline at hand, and
- Professional standards, by which professional members are assessed for, and agree to maintain, competence, also routinely state sustainable practice.

However, to make the dramatic changes required to address the global climate emergency, sustainable practice and climate literacy must become central to each profession, integrating directly with the technical and professional competences demanded of that profession, and communicated widely both within the institution itself, and to members.

## Champions: Central to the sustainable practice and climate literacy mission

Within the professional institutions themselves, there must be a commitment to making sustainability and climate literacy central to the messaging, processes and products, and the resources released to focus on the challenges ahead.

Professional institutions that have made significant progress in this area have committed individuals, or groups of individuals, or **champions**, within them that have driven change, often over a number of years.

The drivers for change typically originate from two areas:

- From the membership itself, who are seeking to lead and/or support their professional institution, and
- From members of boards, committees and/or panels, where members raise the need to consider the challenges we face in terms of climate change, often in their specialist discipline areas

Both require members with significant passion, who can advocate to others, clearly explain why the climate emergency should be a focal point for institutional activities and can present a plan of activities that an institution can follow with suitable resources and timescales.

**Case Study: Making the case for change**:

***Net Zero in Practice: meet ICE's new Carbon Champions, webinar | Institution of Civil Engineers***

With the annual change of the Institution of Civil Engineers (ICE) Presidency to Rachel Skinner of WSP in Autumn 2020, there came a real commitment to address the challenges of climate change through the launch of '***Shaping Zero'*** and '***The Carbon Project***', with Rachel herself a passionate advocate and champion for climate change.

With a full year's focus on climate change and net zero emissions, this highest-level of commitment from the President herself, released a catalogue of activities within the ICE to ensure that every part of its work focuses not only on the technical civil engineering challenges ahead, but on how those technical challenges could be more sustainable and achieve net zero carbon emissions, whilst preparing and supporting each and every part of the ICE membership, and the processes and operations that surround this, to be prepared for, to enable and to measure that change.

The Carbon Project put into place a steering group of industry leaders, chaired by the President, and focused on three workstreams to make an immediate impact and provide focus of activities.

Through these workstreams, the need for '***Carbon Champions***' was realised, and formalised, whereby individuals and projects would be recognised for carbon best practice to build, share and accelerate efforts to mitigate the effects of climate change within the civil engineering profession.

Within the year, *over 20 civil engineers could officially call themselves 'Carbon Champions'*, with their efforts recognised by the ICE.

*In the years following the introduction of the Carbon Project, further champions have been recognised, and the work initiated continues, with professional standards now demanding*

*a greater level of carbon literacy for professional registration; greater levels of member communication, engagement and provision of resources to support upskilling and professional development; processes, procedures and resources to accelerate change implemented, and a clear focus on prioritising and working with stakeholders to push forward solutions to address the climate emergency.*

Champions can enable and drive change; however, there is a need to consider how the professional institution works, the typical decision-making structures in place, and to make provision for the resources available within the professional institution. These factors do influence the capacity and capability of a professional institution to enable change.

**Activity 1** outlines the questions that most professional institutions will need to consider when embarking on or making improvements to their activities in relation to sustainable practice and climate literacy.

In the case of the larger institutions, it is likely that more than one person will be involved, with the decision times probably being longer and more complex than smaller ones.

## Activity 1: Enabling and improving focus on sustainable practice and climate literacy

The purpose of this activity is to help your professional institution to identify and enable progress in terms of making sustainable practice and climate literacy a focal point of activity.

Your organisation should work through the questions below, which will enable your institution to assess its current position and where the institution might move towards.

| Questions | What your institution has now | What your institution wants |
|---|---|---|
| Does your current strategy and business plan reflect the need for sustainable practice and climate literacy? | | |
| Who supports sustainable practice and climate literacy within our institution: how do they do this and what support do they have? | | |
| Do your boards, committees and panels consider and promote sustainable practice and climate literacy? | | |
| Do you have the right expertise and resources available to us to drive change in relation to sustainable practice and climate literacy? | | |
| Will sustainable practice and climate literacy activities be delivered by existing members, volunteers, and/or staff, or will it require new and dedicated roles? | | |

| | | |
|---|---|---|
| Do your key processes and products reflect the need for sustainable practice and climate literacy? | | |
| Will you use existing or new programmes of activity? | | |
| What are the key messages that your institution needs to make to support its members? | | |
| Are there key messages already in play that you can use and adapt? | | |
| How can you adapt these messages for the range and types of members, staff and other stakeholders? | | |
| **Once your institution has completed the above, you can now list any significant gaps that will need addressing** | | |
| **With the gaps identified, your institution can now consider how it can address these gaps and in what timescales** | | |

Undertaking this activity should have demonstrated the gaps between your institution's aims and its current capability and capacity. Where the gap is small your institution should be able to go on to construct a plan to achieve your aims, in a manner that is achievable and timely. Where the gap is larger, your institution may have more complex processes in place, and these must be considered as part of such a plan.

Your institution will most likely seek to use existing resources, staff and expertise available, in order to reduce costs and mitigate risks. Where plans are more radical, institutions will need to consider how they might resource this, whilst also identifying barriers and time constraints at an early stage.

Where strategic and operational plans are already set out for the coming years, it may take another business cycle to bring in changes. Institutions will also need to consider and factor in other major programmes of works, such as that relating to the renewal of Charters and By-Laws, and the impact this may have on resourcing in particular.

With professional institutions comprising members, be they individuals or corporate organisations, placing sustainable practice and carbon literacy at the centre of a professional institution requires member engagement to support and enable successful outcomes.

To this end, the professional institutions as leaders and driver for change, need to make the case for sustainability and climate literacy prominently, and bring the membership and profession with them: **communication and engagement with members** is critical.

## Embedding sustainability and climate literacy in Codes of Conduct for built environment professionals

Members and qualified professionals alike will need to clearly understand the key messages and asks of them in relation to sustainable practice and climate literacy, and how any changes will affect them now and in the future. They must be empowered and enabled to understand and identify the key competences being asked of them, with sustainable practice and climate literacy knowledge and skills supported and contextualised to their profession, their role, level of education and training, and how this might impact on their working responsibilities; for some, this will also require guidance on how they can support and influence others to make more sustainable and environmentally acceptable choices.

Many professional institutions have already made the case for sustainable practice for their members, with the vast majority of member '**codes of conduct'**, the pre-requisite for membership of the profession, already stating that members must consider the impact of their work on the environment.

Codes of conduct also often state the requirement to carry out CPD, all be it many do not stipulate the topics or quantity of CPD required in the codes of conduct. Professional institutions often support members with dedicated guidance and website materials that enable current and potential members to identify what sustainable practice is, how this relates to the UN Sustainable Development Goals (UN SDGs), and how sustainable practice can be applied to the specific discipline or profession that members mostly operate within.

Using these existing codes of conduct provides a reference point to individual and corporate members and can provide a clear reminder to their commitment to sustainable practice. Climate literacy is less well presented within codes of conduct, and it is here that improvements could be made in the built environment profession.

Membership categories for professional bodies can be wide ranging, from learners right through to chartered and fellowship professionals. However, membership entry requirements are often set by the professional body themselves, with a membership **code of conduct** generally applicable to all members and registered professionals: this creates a single touch point at entry for members to commit to, and to comply by throughout their professional career.

Codes of conduct often contain requirements for working towards and maintaining (through CPD) technical and specialist competences, whilst also working towards legal and regulatory requirements, and to good practice in areas including equality, diversity and inclusion, ethical and sustainable practice.

Codes of conduct might also be extended to employer organisations where **corporate or organisational membership** is offered. Here, companies commit to the code of conduct, with that organisation endorsing the principles in the code of practice; the staff body are trained and supported to ensure compliance with professional competence and conduct. Hence, staff have the required skills, knowledge and professional practice, maintaining competence through CPD and are practicing sustainability.

**Case Studies: Making changes to your institutions Code of Conduct to reflect the requirements for sustainable practice, climate literacy and CPD**

Take a look at the following codes of conduct from a range of professional institutions within the built environment sector. Many of these codes of conduct already include sustainable practice and the requirements for CPD. Some also offer guidance notes at the same time, with further website materials also highlighted and promoted to ease communication and engagement with members.

**Codes of Conduct for Individuals**

***Institution of Structural Engineers (IStructE)***

IStructE updated their code of conduct in January 2022 following and in-depth review of its Code of Conduct.

In the communications offered to members, the changes being made were explicitly outlined, and included additional obligations towards safety, sustainability, climate change and diversity and inclusion.

In addition to the communications, IStructE also provided: a YouTube explainer video to introduce the changes, offered Guidance Notes in these specific areas, and offered best practice and links to website materials, including Business Practice Notes.

***Chartered Association of Building Engineers (CABE)***

CABE also undertook a review of its Code of Professional Practice in 2021, through which it now sets out the need for mandatory CPD and its recording, with the CPD Guidance Notes offering further detail on how members should maintain their competence.

**Codes of Conduct for Organisations**

***Royal Institute of British Architects (RIBA)***

RIBA is a professional institute that not only considers individual members, but also organisation level members, these termed 'chartered practice'.

To become a RIBA Chartered Practice, organisations must:

- have at least one RIBA Chartered Member as a full-time employee, thereby committing to an individual code of conduct,
- have a staff ratio of 1 in 8 being a RIBA chartered professional, and
- commit to operating policies regarding best practice in: Employment, Equality, Diversity and Inclusion (EDI), Health and Safety; Environmental Management; and Quality Management.

RIBA publishes further standards and enforcement procedures in a separate document, which states further detail on the requirements for CPD (criterion 6) and to ensure an appropriate Environmental Management Policy is in place and is operational (criterion 10), complete with a RIBA Chartered Practice Toolbox exclusively for registered practices to access and use.

## Activity 2: Ensuring your institution's code of conduct aligns with your focus on sustainable practice and climate literacy

The purpose of this activity is to help your organisation to identify and improve your institution's code of practice to ensure that sustainable practice, climate literacy and CPD are key components of all membership agreements, be that individual or corporate members.

The questions below will enable your organisation to assess its current position with regards to membership criteria, and where the institution might move towards.

| Questions | What your institution has now | What your institution wants |
|---|---|---|
| What membership or professional registration grades does the code of conduct apply to? | | |
| Is there a need for slightly different wording for different grades of member or registration? | | |
| Does the individual member code of conduct reflect the need for sustainable practice and climate literacy? | | |
| Does your organisation directly offer guidance on sustainable practice and climate literacy, and what it means for members? | | |
| Does your code of conduct stipulate requirements for initial training and development? | | |
| Does your code of conduct stipulate requirements for carrying out and recording continuing professional development (CPD)? | | |
| What is your institution asking for in terms of CPD and its reporting process? | | |
| Does your code of conduct stipulate specific areas for CPD and how this is audited? | | |
| How are resources offered by your institution reflected in the code of conduct? | | |

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|---|---|---|
| Does your organisation offer corporate / business membership? | | |
| Does the code of conduct reflect an organisation's need to promote sustainable practice and climate literacy in terms of its business practice and training of employees? | | |
| How does your institution check this initially? | | |
| How does your institution check that their corporate/member organisations remain compliant? | | |
| What processes and documentation does your organisation need to make this change? | | |
| What might be the implications for members and member organisations? | | |
| Will this or any related activity be delivered by existing or new staff? What training might they need? | | |
| **Note:**<br><br>Of critical importance when proposing any changes to key documents is the affect these changes might have on the governance in place for your institution, and in particular, of they affect Royal Charters and By-Laws. Before embarking on any revisions, it is essential to understand how your institution operates, and what affect any changes to professional standards and qualification assessment processes might have on governance, the timescales for review, and how you might prepare your boards and committees to ensure independent review, agreement and approval of any changes in a timely manner. | | |
| Will any changes you propose or make, affect the governance of the institution? | | |
| What affect might proposed and actual changes have on the Royal Charter and/or By-Laws in place? | | |
| How will you manage the review process and the affects this might have, and in what timescales? | | |

Undertaking this activity should have demonstrated where the gaps between your institution's code (or codes) of conduct and mandated requirements for membership current are, and where changes need to be made.

It is essential to carefully map your institution's ambitions with what the profession (current and future members) requires for regulatory and professional standing, with a plan of action also mapped out to communicate changes to members.

In order to make changes to code(s) of conduct, your institution will need to consider how it can use existing staff to draft proposed changes, how it will communicate proposed changes, and how it will capture and address member feedback.

## Learning Points

In professional institutions there are typically many different initiatives to work with members and employers being undertaken at any one time, often across many committees and boards, sometimes even duplicating activity and resources.

In order to make the best use of resources, it is essential that your institution aims to define its aspirations and assess how realistic they are. This can avoid expensive attempts to achieve aspirations that are essentially a step too far from the current position.

Your institution can use existing relationships with other professional institutions to help gain an understanding of the processes and outcomes they sought to achieve.

# Embedding sustainable practice and climate literacy within accreditation requirements for education and training programmes

Entry and access to the built environment professional registers, that is qualified professionals, often require the successful completion of a recognised, or accredited, programme.

These recognised programmes can underpin the knowledge, skills and/or sometimes behaviours, needed to be qualified built environment professionals.

With a variety of professional qualification registers available, and through a range of educational and competence levels, recognised programmes can consist of, but are not limited to:

- Formal qualifications, such as BTECs, City and Guilds, HNCs and HND, NVQs, SVQs etc
- Degree programmes, at Bachelors and Masters level
- Apprenticeships, including English Apprenticeship Standards, Scottish or Welsh Apprenticeship Frameworks, and
- In-company training programmes.

Where professional institutions do carry out the formal recognition, or accreditation, of programmes, there are often:

- Boards, committees and panels that formulate and define the curriculum, standards and other requirements against which all accreditation decisions are made in their discipline areas for each professional register;
- Standards and guidance in relation to Accreditation, for education and training providers to meet for each professional register; and
- Accreditation Panels who carry out the independent review of programmes to ensure they meet the standards and other requirements set by the professional (and regulatory) body.

In many cases, there is also an overarching regulatory body, such as the Architects Registration Board (ARB) or the Engineering Council (EngC) that also set out the minimal criteria for accredited programmes, and regulate the manner in which professional institutions assess, review and confer accredited status to recognised programmes. The promotion of recognised programmes is also regulated to ensure currency and, increasingly, mutual recognition at an international level.

As many stakeholders, and often external quality assurance processes, are involved in education and training, making changes to accreditation requirements can take significant time to implement, with those individuals coming through recognised programmes often only coming to professional qualification review many years down the line.

Making changes to accreditation requirements and processes need to be considered over a significant time period, consideration given to the wider education and skills policies and regulatory requirements in each nation, and the need to support and guide those seeking professional recognition of programmes also considered.

**Case Study: Joint Board of Moderators (JBM): Enhancing and embedding sustainable practice and climate literacy within accredited degree programmes**

The Joint Board of Moderators (JBM) comprises five professional engineering institutions:

- Institution of Civil Engineers (ICE)
- The Institution of Structural Engineers (IStructE)
- The Institute of Highway Engineers (IHE)
- Chartered Institution of Highways and Transportation (CIHT)
- The Permanent Way Institution (PWI)

In response to, and supported by the Engineering Council's statutory and five yearly regulatory review of professional standards, these updated engineering wide standards (launched in April 2021) have a greater focus on engineers increasing their competence and achievement of the UN SDGs. Updated guidance around the UN SDGs for engineers was also published by the Engineering Council at the same time.

The Joint Board of Moderators (JBM), combined with the updating of the Engineering Council's requirements for professional registration and the approval and accreditation of education and training programmes, carried out its own (more specific) review of these standards in relation to engineers and technicians across these five institution discipline areas, combined with a review of the JBM's approval and accreditation requirements for education, training and degree programmes, during late 2019 and early 2020.

Using the Engineering Council's five yearly review, JBM took the opportunity to contextualise an engineering-profession wide set of learning outcomes for engineers in the built environment, and to introduce and explain the size of the environmental challenges faced to university degree programme providers; the aim being to enhance and deepen previously mandated, and further embed, sustainable practice and climate literacy requirements within the JBM's own accreditation guidance and requirements (which exceed the baseline Engineering Council requirements).

Four threads were used throughout the accreditation review, these being:

- Design
- Sustainability
- Professionalism and ethics
- Health and safety, and risk management

These areas were chosen to enhance programme content, development and delivery of degree programmes, support high quality programmes through the development of knowledge, skills and professionalism, and to enthuse and empower future graduates to query and question what they could do, and place greater emphasis on social and global challenges.

Revised learning outcomes relating to sustainable practice and climate literacy should now enable graduates to:

- Place the global challenges of the climate emergency, the 17 UN SDGs and cultural change central to materials selection, design and construction thinking
- Challenge and question a brief, and writing a brief from scratch to demonstrate the embedment of key climate emergency drivers
- Conceive solutions to reuse, remodel and recycle our existing infrastructure appropriately, including retrofit and maintenance
- Provide a sense of worldliness (to include the needs of both developed and developing countries) and an empathy for all users of designs

Students will also possess the knowledge and understanding to enable them to:

- Carry out and embodied-carbon check on a design, and then minimise this carbon footprint while retaining the ley elements of the brief
- Know how wasteful or not a design is when rated against carbon footprint and societal benefit

Full requirements are presented in Annex C of the JBMs Guidelines for Developing Degree Programmes.

Revisions to JBM learning outcomes, processes and procedures were approved in February 2020, with a period of 30-months provided before the revisions would be implemented in September 2022. This period would allow universities who were seeking five-year accreditation, or re-accreditation, to review their degree programmes, to ensure they complied with JBM requirements, and to re-validate these programmes in advance of an accreditation review.

This time period also enabled JBM to offer monthly workshops over an 18-month period to support universities to implement change to their programmes of learning, and in particular, changes to the role of industrial advisory boards (IABs) within universities, where they were specifically challenged to make these emerging priorities a focus for programmes, and to reduce other areas of content that was no longer felt necessary or relevent to the same extent.

Concurrently, JBM also carried out its own assessment on how well its accreditation panel and their members were prepared for such changes. In collaboration with Engineers Without Borders, a workshop was carried out and assessors asked to reflect on their own confidence in terms of climate action.

Assessors were also asked to submit questions to the JBM to support them in identifying areas where more support was needed.

Using this collective feedback, a follow up workshop offered assessors a range of evidence-based responses for them to use and enable further independent assessment of degree programme materials.

JBM has also taken to structuring its accreditation panels with an expert in climate emergency and sustainable practice to ensure degree programmes do support and implement change.

## Activity 3: Ensuring your institution's accreditation requirements and recognition of programmes embed sustainable practice and climate literacy

The purpose of this activity is to help your institution to define and embed sustainable practice and climate literacy within accreditation standards and processes, be that for technical or degree level programmes.

Your institution should work through the questions below, which will enable your organisation to assess its current position with regards to accreditation criteria, and where the institution might move towards.

| Questions | What your institution has now | What your institution wants | What does your institution need to change and in what timescales? |
|---|---|---|---|
| Does your institution accreditation or recognition mechanisms apply to all membership or professional registration categories? | | | |
| Is there a need for slightly different wording for different levels and grades of member/ registration? | | | |
| Does your current documentation sufficiently reflect the breadth and depth of sustainable practice and climate literacy needed for entry to the profession? | | | |
| Does your institution directly offer guidance on sustainable practice and climate literacy to education and training providers, and does this need further development? | | | |
| How is this guidance and training offered to education and training partners, and does delivery mode need updating? | | | |
| Does your institution require education and training providers to implement certain elements beyond content into their development of programmes? For example, industry advisory boards, facilities to enable climate modelling etc | | | |
| Are your institution accreditation panel members prepared and sufficiently competent to carry out accreditation processes? | | | |

| | | | |
|---|---|---|---|
| What support can your institution, or others, provide to improve the competence of those carrying out accreditation processes? | | | |
| Does your institution need to stipulate specific accreditation panel membership to ensure sustainable practice and climate literacy are appropriately supported and assessed? | | | |
| **Once you have completed the questions above, list below the significant differences (gaps) between 'what we have now' and 'what we want'** | | | |
| | | | |
| **Thinking about the differences listed above, consider and answer the following questions:** | | | |
| What processes and documentation does your institution need to make this change? | | | |
| What might be the implications for education and training providers and in what timescales should changes be expected to be made? | | | |
| Will this or any related activity be delivered by existing or new staff? What training might they need? | | | |
| Will this or any related activity be delivered by existing or new volunteers? What training might they need? | | | |

Undertaking this activity should have demonstrated where the gaps between your institution's accreditation criteria and processes, and where changes need to be made.

It is essential to carefully map your institution's ambitions with what the profession (current and future members) requires, how education and training providers and accreditation experts can engage and support the implementation of changes, and how this might also challenge other regulatory and external quality assurance processes in play.

Your institution will need to consider how it can use existing staff and often volunteers to draft proposed changes, how it will communicate proposed changes, and how it will capture and address member feedback. A plan of action needs to be considered and mapped out, and proposed changes communicated within reasonable timeframes for implementation.

# Professional qualification: Embedding sustainable practice and climate literacy within standards and assessment requirements

Professional standards can, like membership categories, be at various levels ranging from technician through to practitioners and chartered professionals and beyond into fellowships.

Members who are seeking professional qualification will need to clearly understand the key requirements of them in relation to the level of professional status they are seeking; in particular, how sustainable practice and climate literacy fits within these professional registers. Where changes are being proposed, applicants will need to know how any changes will affect them applying, how they might be assessed, and when changes might happen.

It is essential that applicants can freely access clear guidance around sustainable practice and climate literacy, to enable them to prepare and present themselves for professional review, demonstrating how they meet the criteria set by which their competence will be assessed. This guidance and assessment will also need to reflect the opportunities they will have in their working lives, be contextualised to their role, with clarity on the expected level of competence they need to be working at and demonstrating routinely.

Many professional institutions have already made sustainable practice part of the range of standards they set and assess professional competence against, with guidance routinely offered to prospective candidates. Also, institutions have increased the level of training for their reviewers to ensure a thorough assessment of professional competence.

In combination with the codes of conduct, the professional review process is well positioned for sustainable practice and the ongoing need for CPD to maintain competence. However, terminology relating to climate literacy is less abundant in professional standards and review practices, and it is here that improvements could be made for built environment professionals.

**Case Study: Institution of Structural Engineers (IStructE): Embedding sustainable practice and climate literacy within professional registration standards and the professional review processes**

Over recent years, the Institution of Structural Engineers (IStructE) identified the need to make changes to the professional review processes in place in response to a variety of factors, including:

- Structural safety in response to the Hackett Review and the Building Safety Bill
- The climate emergency and the skills that engineers of the future will need to have to address it
- Changes to language in common use, such as the UN Sustainable Development Goals
- Engineering Council regulatory requirements in UK-SPEC v.4

- Inclusive design

In developing and implementing updates to the initial professional development (IPD) and professional review processes, IStructE established task groups, chaired by senior members and made up of a range of expertise from across the membership. The key aims being to review professional assessment criteria for its incoming qualifying professionals.

IStructE operates a set of 'Core Objectives' for its initial professional development, and these assessed via Exam and Professional Review Interview (PRI).

The task groups engaged and consulted with key stakeholder groups, including their own professional review assessors, a range of panels including the Application and Professional Review panel, Exams panel, Young Members' panel, and with the Membership Committee, prior to seeking approval from the IStructE Board in July 2021.

Whilst the methods of assessment, exam and PRI, have not changed significantly, some changes to the examination are set to be implemented from 2023, with candidates being required to respond to exam questions and scenarios with sustainable practice demonstrated.

The bigger change comes in the form of Initial Professional Development (IPD), where Core Objectives are now being changed: from 2023, there will be a more streamlined set of Core Objectives, from 13 down to 10, but these 10 now embedding broader 'sustainability' rather than simply 'the environment' into the IPD process. Associate and chartered members will need to demonstrate experience (E) for sustainability, drawing on their knowledge (K) and ability (B) in areas such as professional standards and engineering responsibility, and materials, all of which underpin experience.

An outline of the rationale for change, and the methods used, has been offered by IStructE, with incoming candidates being advised of these changes in advance.

## Activity 4: Embedding sustainable practice and climate literacy within the professional standards and qualification process

The purpose of this activity is to help identify and improve your institution's professional standards and qualification processes to ensure that sustainable practice and climate literacy are key components of all formal qualification requirements.

Your institution should work through the questions below, which will enable your organisation to assess its current position with regards to professional qualification, and where the institution might move towards.

| Questions | What your institution has now | What your institution wants |
|---|---|---|
| Do all your institutions professional qualification standards reflect the need for and include sustainable practice and climate literacy? | | |
| Is there a need for slightly different wording for each professional standard offered, | | |

| | | |
|---|---|---|
| and is that language levelled appropriately for each professional qualification? | | |
| Does the associated guidance offer potential applicants' suitable examples of sustainable practice and climate literacy, and at appropriate levels of professional qualification? | | |
| Does your institution offer support and initial development training to support potential applicants? | | |
| Do applicant resources offered by your institution need to better reflect sustainable practice and climate literacy? Do these resources need further development or enhancement? | | |
| Are your institutions professional assessors prepared and sufficiently competent in sustainable practice and climate literacy to carry out professional qualification processes? | | |
| Which individuals and external organisations will you need to communicate changes with? | | |
| What support can your institution, or others, provide to improve the competence of those carrying out professional qualification assessment? | | |
| How will your institution communicate, gather and act on feedback prior to implementing change to the professional qualification requirements? | | |
| Has your organisation considered the lead in and impact such changes will make to timescales for changes to each professional qualification? How will your organisation implement timely changes? | | |
| Does your institution need to stipulate specific assessment panel and board memberships to ensure sustainable practice and | | |

| | | |
|---|---|---|
| climate literacy are appropriately supported and assessed? | | |
| **Once you have completed the questions above, list below the significant differences (gaps) between 'what we have now' and 'what we want'** | | |
| | | |
| **Thinking about the differences listed above, consider and answer the following questions:** | | |
| What processes and documentation does your organisation need to make this change? | | |
| What might be the implications for potential applicants and in what timeframes? | | |
| Will this or any related activity be delivered by existing or new staff or volunteers? | | |
| What training might they need? | | |
| Note:<br>Of critical importance when proposing any changes to key documents is the affect these changes might have on the governance in place for your institution, and in particular, of they affect Royal Charters and By-Laws.<br>Before embarking on any revisions, it is essential to understand how your institution operates, and what affect any changes to code(s) of conduct might have on governance, the timescales for review, and how you might prepare your boards and committees to ensure independent review, agreement and approval of any changes to code(s) of conduct in a timely manner. | | |
| Will any changes we propose or make, affect the governance of the institution? | | |
| What affect could proposed and actual changes have on a Royal Charter and/or By-Laws that might be in place? | | |
| How will your organisation manage the review process and the affects this might have, and in what timescales? | | |

Undertaking this activity should have demonstrated where the gaps between your institution's professional standards and qualifying requirements currently are, and where changes need to be made.

It is essential to carefully map your institution's ambitions with what the profession (current and future members) requires for regulatory and professional standing, with a plan of action also mapped out to communicate changes to potential applicants.

In order to make changes, your institution will need to consider how it can use existing staff and qualified professionals to draft proposed changes, how these changes will be communicated, and how to capture and address feedback.

### Learning Points

Making successful contact with potential applicants requires meticulous planning and will probably take more time than you think! You will see from the actions devised through activity 4, that a plan that a 12-month timescale may only just be possible – with two years being probably more realistic.

To achieve a short timescale any internal responses such as board and committee engagement, preparation and publication of standards and guidance, along with the upskilling of professional assessors will have to occur without delay.

In order to make the best use of resources, it is essential that your institution aims to define its aspirations and assess how realistic they are. This can avoid expensive attempts to achieve aspirations that are essentially a step too far from the current position.

## Offering a dedicated Professional Register to recognise Environmental Professionals

A number of built environment professional institutions are now offering members access to the professional registers operated by the Society for the Environment, an umbrella organisation that licenses other professional bodies from almost every sector for environmental competence.

Here, members have the option to apply to, and be assessed against, one of the three dedicated professional standards for environmental competence:

- Registered Environmental Technician (REnvTech)
- Registered Environmental Practitioner (REnvP)
- Chartered Environmentalist (CEnv)

Working in partnership with professional institutions, licensed by the Society for the Environment, some 10,000 environmental professionals have been registered since 2004 (across a very broad and wide range of industries). Some profiles of professional registrants are available online complete with a range of resources open to members and registrants alike.

With professional institutions open to regulation by the Society of the Environment, promoting an access to dual professionalism can be a welcome reality for many members and professionally qualified built environmental professionals within a single professional home.

**Case Study: The Chartered Institute of Building (CIOB): Offering wider professional registration options to built environment professionals**

CIOB identified the need and increasing demand from the construction industry to recognise sustainability expertise, and in response saw one way to demonstrate competency being for members to consider gaining chartered environmentalist status, CEnv, from the Society for the Environment (SocEnv).

CIOB, at this time, offers the Chartered Environmentalist (CEnv) to members. The application process for those CIOB members who want to become a CEnv registered involves submitting a masters level written application. There follows a professional interview with specialist assessors.

Through its online journal, Construction Management, CIOB has now promoted the option to gain additional professional recognition, with a number of case studies of individuals where dual professionalism has been achieved, and why it was important to them and their professional role.

# Continuing Professional Development (CPD): Placing sustainable practice and climate literacy at the forefront

With the focus on building safety legislation and incoming regulation, engagement with the built environment professional institutions and their qualifying and ongoing competence processes are now at the forefront of the minds of many built environment organisations and the professionals' therein.

The implementation of building safety legislation in 2023, and the registration of Accountable Persons (APs), has the potential to shape the industry and the role of professionals and their professional bodies for many years to come. These regulations will have significant implications for professional practices and for design, contracting, manufacturing and those who own, operate, manage and maintain buildings.

As significant changes are likely to be needed, particularly around demonstrating initial and ongoing competence, the need for CPD as a means to maintain and up-skill professionals has never been more important. Having to make such significant changes at this time can also be used to address and/or enhance sustainability, climate literacy and biodiversity CPD for members, with consideration for making such CPD mandatory.

Many of the built environment professional institutions already mandate CPD for members, with this being committed to by members when they sign up to the code of conduct, and for qualified professionals, is often part of the professional review process. However, CPD focused on climate literacy, sustainable practice and biodiversity remains, for the most part, optional.

Transitioning to mandatory CPD in itself has been a long process, but members and qualified professionals are now beginning to see the need for CPD, with professionals turning to their institutions for that learning, development and training. Hence, the demand for CPD in the areas of climate literacy, net-zero, and sustainable practice is increasing,

CPD does come in a variety of forms, from a wide range of sources and training packages (internal and external to the professional institution), and can range in quality and quantity, and covers many areas of technical and professional competence.

When carrying out discussions with the built environment professional institutions, of those that mandate CPD, members are often required to complete CPD in the following forms:

- Self-directed and self-reflective learning and development
- Specified hours of CPD
- Specified format of CPD (where the professional institution sets hours for both formal and informal CPD)
- Professional Institution specified topics

Where CPD is mandated, it is often audited in some form (be it spot-checking of records, regular audits or for each and every member), where non-compliance is found, all

professional institutions can and may take action against individual members. This ranges from initial and prompting reminders to complete CPD returns, often at the time of annual membership renewals, right through to disciplinary procedures and ultimate strike off of professional membership and qualification.

The introduction of mandated CPD and its reporting has been a significant step change and challenge for both members and professional institutions themselves, with guidance developed, CPD content being made available, digital learning platforms, and now the availability of digital reporting.

CPD programmes and digital capabilities to ease reporting and ultimately monitoring and assessing the quantity and quality of CPD has, and remains, a high cost to professional institutions, for which membership subscriptions and the marketing and selling of specialist and technical CPD, all require resourcing and significant investment. For many smaller professional institutions, this remains difficult to fund and resource.

At the time of writing, no professional institution sets specific CPD mandatory requirements in relation to sustainability, climate literacy and net-zero, but many are now considering how they might introduce this. A number of institutions, including RIBA, RICS, IStructE and CIHT, are now in the process of engaging with members and seeking routes forward, via their task groups, panels and Boards, to implement changes that will seek to introduce mandatory CPD in the area of climate literacy, understand the level needed by the wide range of members and qualified professionals, be that knowledge and understanding, or experience, and how the institutions will themselves assess this competence through member CPD records and the institutions recognised CPD courses.

**Case Study: Royal Institute of British Architects (RIBA): An approach to making CPD Mandatory**

RIBA is a professional institution that already requires professionally qualified members to carry out 35 hours of mandatory CPD.

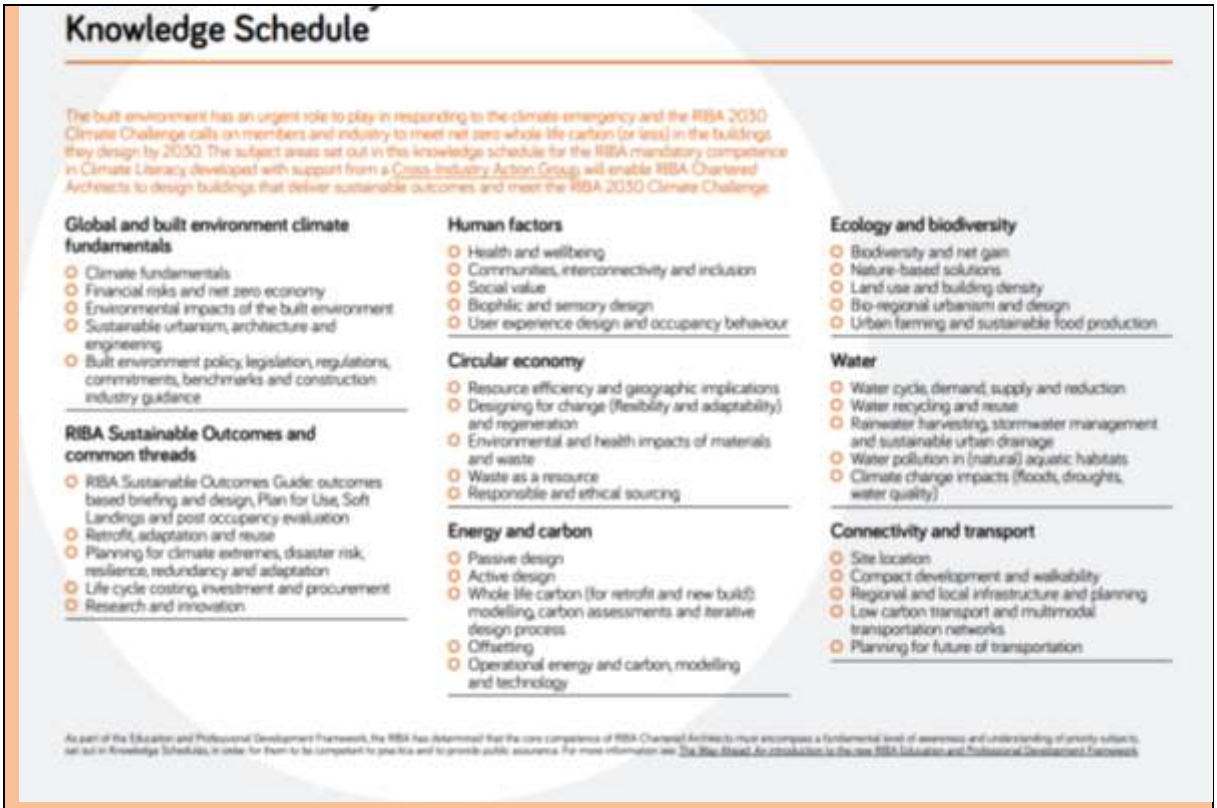
RIBA has also introduced, a range of specific topic areas for which all members will need to spend at least 2 hours per year of CPD, one area being sustainable architecture.

In efforts to address health and safety; building safety; and climate literacy and sustainable development; RIBA has embarked on a programme to increase and ensure its chartered members are completing more specific and RIBA offered CPD.

This approach has been supported by the RIBA Council and Standards Committee and has now put into place significant resources to enable this approach to be taken forward.

In order to introduce these areas of CPD, RIBA has had to consider how it:

- Engages and communicates with members to ensure buy-in and compliance
- Invests in and provides mandated CPD
- Enables the recording and monitoring of CPD completion
- Will assess the impact of this CPD policy on competence, and
- Will fund and resource this approach in the long term.



## Knowledge Schedule

The built environment has an urgent role to play in responding to the climate emergency and the RIBA 2030 Climate Challenge calls on members and industry to meet net zero whole life carbon (or less) in the buildings they design by 2030. The subject areas set out in this knowledge schedule for the RIBA mandatory competence in Climate Literacy developed with support from a Cross-Industry Action Group, will enable RIBA Chartered Architects to design buildings that deliver sustainable outcomes and meet the RIBA 2030 Climate Challenge.

### Global and built environment climate fundamentals

- Climate fundamentals
- Financial risks and net zero economy
- Environmental impacts of the built environment
- Sustainable urbanism, architecture and engineering
- Built environment policy, legislation, regulations, commitments, benchmarks and construction industry guidance

### RIBA Sustainable Outcomes and common threads

- RIBA Sustainable Outcomes Guide: outcomes based briefing and design, Plan for Use, Soft Landings and post occupancy evaluation
- Retrofit, adaptation and reuse
- Planning for climate extremes, disaster risk, resilience, redundancy and adaptation
- Life cycle costing, investment and procurement
- Research and innovation

### Human factors

- Health and wellbeing
- Communities, interconnectivity and inclusion
- Social value
- Biophilic and sensory design
- User experience design and occupancy behaviour

### Circular economy

- Resource efficiency and geographic implications
- Designing for change (flexibility and adaptability) and regeneration
- Environmental and health impacts of materials and waste
- Waste as a resource
- Responsible and ethical sourcing

### Energy and carbon

- Passive design
- Active design
- Whole life carbon (for retrofit and new build): modelling, carbon assessments and iterative design process
- Offsetting
- Operational energy and carbon, modelling and technology

### Ecology and biodiversity

- Biodiversity and net gain
- Nature-based solutions
- Land use and building density
- Bio-regional urbanism and design
- Urban farming and sustainable food production

### Water

- Water cycle, demand, supply and reduction
- Water recycling and reuse
- Rainwater harvesting, stormwater management and sustainable urban drainage
- Water pollution in (natural) aquatic habitats
- Climate change impacts (floods, droughts, water quality)

### Connectivity and transport

- Site location
- Compact development and walkability
- Regional and local infrastructure and planning
- Low carbon transport and multimodal transportation networks
- Planning for future of transportation

As part of the Education and Professional Development Framework, the RIBA has determined that the core competence of RIBA Chartered Architects must encompass a fundamental level of awareness and understanding of priority subjects, set out in Knowledge Schedules, in order for them to be competent to practice and to provide public assurance. For more information see The Way Ahead: An introduction to the new RIBA Education and Professional Development Framework.

Communication and engagement with members have been, and remain critical to the success of the roll out of mandatory CPD.

RIBA ensured to set out why it was introducing further mandatory CPD, how it would offer support and materials to members, and why and how testing would be introduced.

It learned from members that half of its member respondents welcomed the approach to mandatory CPD, with around a third of members not wanting it; the remaining were open to persuasion. RIBA also asked for member feedback in relation to the specified areas, timelines from introducing mandated CPD, and if members welcomed the approach to regular re-assessment of mandatory competence areas and the timescales of 5 years for this re-assessment.

RIBA used this feedback to consider how its planned implementation of mandatory CPD and prescribed topics should be rolled out, with some delayed activity seen to original plans.

In addition, RIBA has also further invested in its digital platform to enable members to record and report the CPD they are doing, with just over half of members now using this, with the plan to make completion of the digital platform mandatory for all members in the near future.

RIBA also acknowledges there remain limitations in its approach. Of note is that its current testing focuses on the assessment of knowledge. It is currently considering how it might combine testing in specified areas with self-reflective logs most likely to ensure competence. Resourcing this next step will need considerable thought.

At the same time, professional institutions, whilst many do offer climate related CPD for members to access, are seeking to identify how they can improve their CPD offer, how they

might make such content mandatory, and how they might record the uptake and impact in terms of competence.

There is wide support for mandatory CPD across the built environment profession, but it remains complex, and can be costly, to deliver.

There are also real risks which professional institutions need to consider, including loss of professionally qualified members (particularly where there is no licence to practice in operation), a reduction in income from fewer professional members, which could mean reduced funding for ongoing investment in the professionalism of the workforce, in building safety compliance, and in ensuring the wider workforce is climate literate.

It is here where the professions must engage and work with employers and the Government to ensure they understand the value of professionalism to industry, and to co-invest in a professional workforce that welcomes and embraces climate literacy for all of the built environment workforce.

**Activity 5: What to consider when mandating CPD including requirements for sustainable practice and climate literacy**

The purpose of this activity is to help your institution to consider how you can move towards mandating CPD and specifying mandatory CPD content and testing of sustainable practice and climate literacy.

Your institution should work through the questions below, which will enable your organisation to assess its current position, and where the institution might move towards

| Questions | What your institution has now | What your institution wants |
|---|---|---|
| Does your institution already require mandatory CPD? If so, how it this communicated to members and professional registrants?<br>Do all the institutions professional qualification standards include sustainable practice and climate literacy? | | |
| Does your institution's Code of Conduct reflect the need for mandatory CPD, and is this checked on entry, and on a regular basis (annual etc)? | | |
| How does your institution ensure CPD is being carried out?<br>What checks and balances do you have, and could you use the annual subscriptions process to check member CPD has been completed? | | |
| What processes have you got in place, or could improve, to ensure | | |

| | | |
|---|---|---|
| action is taken when CPD is not completed? | | |
| What level of auditing is in place to ensure CPD is of an appropriate nature? | | |
| Do you provide feedback to members on their CPD? What resources might this need? | | |
| Do you have IT platforms that can support with promoting and offering CPD, capturing CPD records, and auditing CPD? What else might you need? | | |
| Do you offer or endorse CPD? How might this be used to increase the development of sustainable practice and climate literacy competence? | | |
| Is further investment needed, and how might your institution go about developing plans to increase investment? | | |
| What support can your institution, or others, provide to improve the competence of those seeking CPD products? How can you promote and share CPD products and resources beyond your current and future membership? | | |
| What might your institution need from others to learn from best practice? How would your institution go about working with others? | | |
| **Once you have completed the questions above, list below the significant differences (gaps) between 'what we have now' and 'what we want'** | | |
| | | |
| **Thinking about the differences listed above, consider and answer the following questions:** | | |
| What processes and documentation does your | | |

| | |
|---|---|
| organisation need to make this change? | |
| What might be the implications for potential applicants, for members, and for professional registrants and in what timeframes? | |
| How will your institution communicate and address feedback from its members and beyond? | |
| What investment will your institution need to put CPD plans into action? How will your institution define and deliver plans? What approval will your organisation require? | |
| Will this or any related activity be delivered by existing or new staff or volunteers? Will you need to develop or endorse CPD products? | |

Undertaking this activity should have demonstrated where the gaps between your institution's current and future CPD requirements are, and where changes and resources might be needed.

It is essential to carefully consider how your institution's ambitions might impact on members, and how you will communicate, engage and act on feedback from members, with a plan of action mapped out to ensure changes will retain and improve the membership offer.

In order to make changes, your institution will need to consider what resources and expertise it has, and the level of funding that can be dedicated to implementing any changes, both now and in the future.

**Learning Points**

When you gather and gain feedback from members this should be considered an initial success, but you need to be sure that you treat the member body with exceptional care and attention.

It is important to build methods to collect all feedback from members as you go along as this may prove useful to your institution in the future.

When engaging members as a part of your institutional activities, it is important that the activity is sustainable in the long term. To achieve this, it is crucial that you have detailed records of costs, timings and effectiveness of all the activities your institution undertakes. Allied to this, it is evident that any developments and communication goes through due diligence and supports processes to enable desired outcomes.

## Professional Institutions offering CPD

Of those institutions that do offer their own forms of sustainable practice, climate literacy and net-zero CPD (often contextualised to the profession/discipline area), it often comes in the forms of:

- Regular journal pieces
- Web materials including articles, blogs, webinars, with some professional bodies offering a dedicated climate hub
- Guidance on sustainability
- Short courses
- Specialist courses, some with qualifications awarded
- Dedicated conferences and meetings in relation to climate change and sustainable practice
- Themed promotions running through a range of professional institution activities.

**Case Study: The Institution of Civil Engineers (ICE): Launch of a Sustainability Route Map**

In 2019, the ICE launched a three year plan, known as the Sustainability Route Map, to support its (and broader) global engineering community to better engage with the UNSDGs and demonstrate the impact of engineering projects. Working groups were established to support three areas of activity:

- **Measuring, monitoring and reporting** – to evaluate current methods and provide a framework for engineers to measure and report SDG impact
- **Systems approach** to aid engineers to adopt collaborative and outcomes-based projects
- **Global knowledge sharing** – to increase SDG knowledge through education and CPD

This approach has also led ICE to presenting and tagging all new, and revisiting their back catalogue of, materials to directly map materials to the UN Sustainable Development Goals (UNSDGs), enabling members to identify and consider how they are reflecting, achieving and maintaining competence against the UN SDGs. The ICE now offers an online UN SDG Resource Centre to support this approach.

Where net-zero challenges and sustainability are covered in these CPD means, there is often little on embodied carbon, safeguarding biodiversity, the circular economy, or improvements to efficiency/new ways of working, particularly using digital and information management. Modern methods of construction and so on are covered in terms of broader enabling skills.

What has been raised as a concern is the need to ensure that the CPD offered by PIs and others can:

- Be kept up to date (which takes expertise and funding)
- Be delivered in a format that members and non-members alike can access
- Be easily recorded by members as evidence of completion of appropriate CPD, with records accessible to enable checking and verification readily by professional institutions
- Offer a means of income generation for many of the PIs to develop (often more in depth) materials, that can be offered to members (free/low-cost), or non-members for a higher fee

**Case Study: The Chartered Institution of Highways and Transportation (CIHT): Supporting the delivery and recording of climate literacy CPD**

The CIHT offers a range of professional qualifications, including those regulated by the Engineering Council (EngTech, IEng and CEng), and the Chartered Transport Planning Professional (CTPP). In all cases, CPD is mandatory, with annual returns required, for these qualified professionals, and the broader membership of CIHT.

In 2021, CIHT embarked on a programme to implement a new learning and development platform to aid members and qualified professionals to access high quality learning and development opportunities, to log this against the professional registration requirements, and to keep records of the CPD undertaken. The 'CIHT Learn' platform was formally launched in Spring 2022, with a range of short and technical courses offered in the areas of climate change and sustainability. Members and non-members alike are able to access a range of free and paid-for content - members having a broader range of free courses to choose from or through bulk-purchasing of courses for reduced fees with their annual subscription.

At launch of CIHT Learn, two introductory courses were developed and offered for free, these being:

- Sustainable Transport – Introduction (1.5hours)
- Transport Decarbonisation (1 hour course)

Further short courses followed during 2022, offer more in depth and greater contextualised learning, such as the Carbon Literacy – Accounting course (1 hour), and Planning for Cycling courses 1, 2, 3 and 4 (4.5 hours in total).

All courses were developed by industry and/or subject matter experts, and the online nature of these modules allows for registered learners to work their way through modules and respond to questions. Only when modules are passed are the modules marked as complete and open to inclusion on the learners CPD record.

The two initial courses to date have received, by far, the most uptake and completion for those registered on the CIHT Learn platform.

Efforts are now focusing on identifying where there are gaps in short course provision, ensuring there is a steady stream of new and relevent content (developed by experts), and

in increasing the uptake and use of CIHT Learn by members. Ongoing engagement with members and corporate partners is critical to these outcomes.

Whilst initial investment levels were high for the institution, and demanding on resources, plans are in place to ensure the ongoing investment in the platform and CPD offering, ensuring key measures are put into place, monitored and measured.

The benefits are that CIHT Learn can promote the benefits of professional membership, offering CPD that is contextualised and of high quality through a single platform, with CIHT members being able to readily capture and record CPD.

CIHT in return can also access CPD records of its members far more easily and is preparing to utilise the platforms capabilities to ease auditing of CPD records in future.

The resources involved in identifying, developing and offering CPD can be costly and time consuming for an institution, and where resources are limited, other options to recognise the short courses, technical programmes, and highly specialised learning and development can be an option. By reviewing, assessing and formally recognising others' content and delivery mechanisms can be a quick win, promoting to members where high quality CPD can be found.

However, other options for sharing and updating the profession wide 'Climate Framework' could be of most benefit to the entire construction and built environment sector, and not just for professional body members and qualified professionals.

## The Climate Framework: A collaboration opportunity for the built environment sector

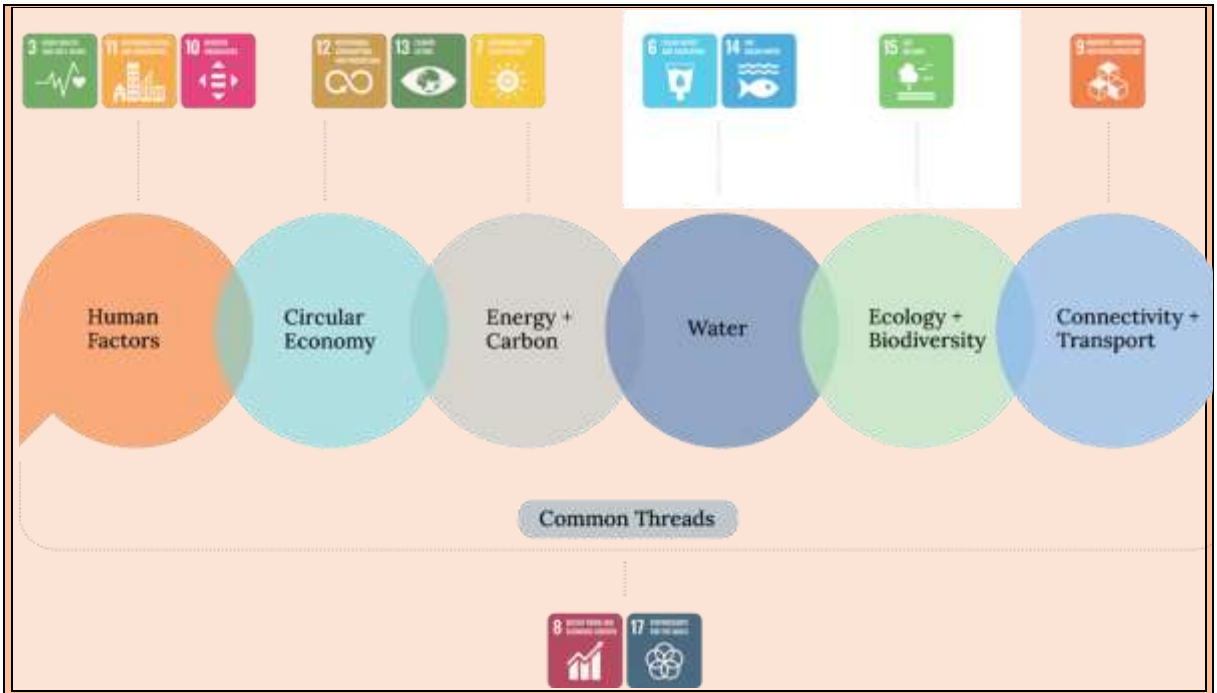
The CIC's climate action plan is also set to determine, develop and drive forward the cross-industry climate framework – this being a curriculum that professional institutions can utilise and offer their members covering a variety of high-quality resources covering a range of UN SDGs (bite-sized chunks of learning, from an introductory level, through to more in depth and highly specialised technical content). The aim is to enable and encourage access to professional institution's own CPD or endorsed CPD from other organisations, for members at all levels and points in their professional careers.

**Case Study: The Climate Framework**

The Climate Framework initiative was started in 2020 to address the many challenges we face with climate change to social inequalities and health. With a focus and alignment on the skilling and upskilling of the built environment workforce, The Climate Framework is now responding to the need for consistency and collaboration across this sector, defining a common language, and focusses on bringing together the professional institutions with employer and higher education partners.

The Climate Framework aims to deliver a platform to support built environment professionals and the broader workforce to identify and access a shared curriculum for climate knowledge, and embrace wider learning from across the disciplines in this sector.

Building on existing and invaluable resources, The Climate Framework brings these together under a single central 'knowledge pool' using a common language, across six main themes, linked directly to the UN SDGs.




Content within The Climate Framework is tagged across these six themes, and offers three levels of climate knowledge, these being 'Climate Aware', 'Climate Adopter' and 'Climate Expert' – offering users the ability to learn and develop more in-depth knowledge as they progress their learning.

The Climate Framework has also resulted in the development of further and more up to date resources, including online short courses on Energy and Carbon in the built environment from UCEM (see below), and four credit bearing short courses focused on Net Zero in the built environment from LSBU.

With open access to The Climate Framework, users can begin to identify initial and appropriate resources for them to use, from the 500 plus resources on offer, with additional tagging to support user searching via subject headings, discipline, duration, level of detail and difficulty, media type, project stages and quality (based on peer review).

With the Climate Framework pointing members to sources of high-quality materials in a manner that those members can access should offer consistency and reduce duplication of efforts across the built environment profession and support a means to ensure materials remain up to date.

Whilst much material will be free to access for members, there is also the opportunity to offer detailed technical and paid-for content, where professional bodies and other organisations could work in partnership to design, develop, and deliver CPD.

One such example, is the short course offered by the University College of Estate Management (UCEM) titled 'Energy and Carbon in the Built Environment'.

**Case Study: University College of Estate Management (UCEM): 'Energy and Carbon in the Built Environment' Short Courses**

The University College of Estate Management (UCEM) aims to become the world's most sustainable university, offering a range of education and training products for the built environment, all of which are underpinned by sustainability and climate literacy.

In response to an industry need for high quality short courses to address sustainable practice, UCEM embarked on the design, development and delivery of a 25-hour short course for professionals in the built environment, titled 'Energy and Carbon in the Built Environment'. The course itself explored how net zero carbon can be achieved through optimised building design, sustainable material selections, and efficient construction.

On completion of the course, UCEM offered a completion certificate, enabling built environment professionals to enter and validate the 25 hours of CPD they have completed, with professional bodies able to capture this high-quality experience for their members.

On the first year of the course free access was open to all, with over 2700 professionals registering, and many having now completed the course and receiving their CPD certificates. Completion of the course is also mandatory for all UCEM staff, no matter their role – ensuring that UCEM staff are enabled and empowered to support the sustainability agenda.

UCEM has also further developed the course, offering it as bite-sized 'paid for' modules, enabling wider uptake and access for busy professionals. These 6 hour CPD courses include: Controlling Energy and Carbon Emissions in Buildings; Reaching Net Zero Through Passive Building Design; Reducing Energy Use Through Active Building Design; Understanding Energy and Carbon Assessments for Buildings.

With a wide range and variety of CPD now on offer to professionals across the built environment, capturing and recording competence remains a focus for the profession. Many courses offer multiple choice questions as a form of assessment of sustainable practice and climate knowledge but it is important to consider that the ongoing application and testing of such knowledge ensures competence in these areas. Access to professionals from all across the built environment sector, with professional qualification and registration, complete with ongoing CPD, is the ultimate goal.

# Summary

In considering each of these sections, either independently or in full, there are significant opportunities for any professional institution to reflect on current practice. For example, offering a variety of routes for members (existing, potential or stakeholder) involving entry to, registration of, and maintaining ongoing competence through lifelong learning in relation to sustainability and climate literacy.

Having your institution define its aspirations and how realistic they are, in terms of meeting outcomes, ensures more robust plans are put into place in a timely, effective and efficient manner. These opportunities, if considered carefully, allow processes to be reflected upon, collaborative activities coordinated to leverage resources, thereby addressing any challenges that professional institutions may face in terms communicating or engaging individuals and boards.

Using existing relationships with members, boards, key stakeholders and other professional institutions will help to gain an understanding of the processes and outcomes sought, with well-defined outcomes achievable. Communication, engagement and acting on feedback will support the professions to engage and embed positive change, with members feeling part of the community and offering solutions needed now and in the future.

That said, investment is needed to achieve many of the aspirations and activities set out in this toolkit. Investment in people and upskilling, providing guidance, improving processes, and even implementing IT systems to offer, track and audit CPD can be an expensive outlay. However, returns on investment need to be considered over the life span of typical members and the professional institution's business plans, with sustainability and climate literacy as part of a broader offer to support this sector and its professionals to comply with incoming building safety regulations.

Working as a coordinated and collaborative built environment profession, good practice and resources can be utilised and efforts shared; this also offers the benefits of consistency of approach and language across the sector, with industry now seeking leadership and solutions from the professional institutions, and capturing the means to ensure their staff are, and remain, competent.

# About this toolkit

Workstream one of the Construction Industry Council's Climate Action Plan considers three areas in relation to sustainability, net zero and carbon literacy, these being the educational developmental routes to professionalism, the initial, and ongoing, competence of those professionally recognised in the built environment sector.

It must be noted that:

- Of the CIC's 34 member bodies, 23 set competence or professional standards for individuals, the remaining are focused on organisational or trade memberships.
- Many of these 23 member bodies are global institutions, with their membership stretching beyond the bounds of the UK construction sector.
- Some institutions do not solely focus on the construction sector, instead offering construction professionals recognition of their broader competence, for example in project or risk management, IT, procurement, or the likes of research.
- Only some of these member bodies either offer their own qualifications (for example NEBOSH, Fire Engineering, or CDM), whilst only some set standards and carry out accreditation of education and/or training programmes.
- Furthermore, only some member bodies either recommend or offer their own continuing professional development (CPD) products.

Summer 2021 saw the completion of 17 interviews with CIC member bodies, these being:

- 14 professional institutions (which set professional standards)
- 2 regulatory bodies
- 1 an association/industry membership organisation that did not assess 'individual's professional competence'

Of these 14 professional bodies, many (8) are also initially reliant initially on the requirements of the regulatory bodies, these being:

- The Engineering Council: which completed its five-yearly review process in 2020, with revised standards, registration codes of practice and processes to be implemented by its licenced bodies by 31st December 2021, with sustainability and consideration of the environment continuing to feature[1].
- The Architects Registration Board (ARB): which undertook a review of its professional standards and accreditation processes in late 2021/early 2022, with sustainability, environment and climate considerations being accepted as key features for architectural competence; outcomes of these reviews will be further consulted upon before final implementation in 2023[2].

[1] Engineering Council (engc.org.uk)
[2] Modernising architectural education and training | ARB

Full findings from the interviews were presented to the CIC in November 2021, demonstrating that the professional bodies which set competence standards (13 of 14), and those that carry out accreditation (10 of 12), do already mandate and assess sustainable practice, whilst offering guidance on sustainable practice to those supporting delivery and registration of professionals. Three 'deep dive' sessions were also carried out to highlight and share practice from the professional bodies, with these forming some of the case studies within this toolkit.

The professional bodies engaged in this project do recognise the need for improvements and agree that better support is needed for those delivering education and training and supporting those who assess the quality of education or carry out professional reviews.

Ensuing the ongoing competence of professionals remains more problematic, with few institutions (as yet) with the processes in place to assess, measure and monitor climate specific CPD uptake, nor the outcomes in relation to competence as a result of undertaking climate CPD.

## List of Case Studies

1. Royal Institution of Chartered Surveyors: Engaging members on Climate change and sustainable practice
2. Institution of Civil Engineers: Introduction of carbon champions
3. Multiple Professional Institutions: Making changes to Codes of Conduct to recognise the need for carbon literacy and sustainable practice
4. Joint Board of Moderators: Enhancing accreditation requirements in relation to carbon literacy and sustainable practice for the recognition of education and training programmes
5. Institution of Structural Engineers: Enhancing professional qualification and assessment requirements in relation to carbon literacy and sustainable practice
6. Chartered Institute of Building: Offering broader professional standards to recognise environmental competence
7. Royal Institute of British Architects: Mandating climate literacy and sustainable practice within CPD requirements
8. Institution of Civil Engineers: Mapping CPD resources to the UN Sustainable Development Goals
9. Chartered Institution of Highways & Transportation: Implementing a digital learning platform with climate literacy and sustainable development CPD courses
10. Royal Institute of British Architects / The Climate Framework
11. University College of Estate Management: Carbon in the Built Environment Short Course

## List of Activities

1. Focusing and reviewing activities related to climate literacy and sustainable practice within the professional institution
2. Developing and implementing revisions to Codes of Conduct to reflect climate literacy and sustainable practice requirements for members and organisations
3. Developing and implementing revisions to accreditation and/or recognition of education and training programmes to reflect climate literacy and sustainable practice requirements
4. Developing and implementing revisions to professional qualification and assessment processes to reflect climate literacy and sustainable practice
5. Implementing changes to CPD requirements to reflect climate literacy and sustainable practice, with an aim to mandate CPD in these areas