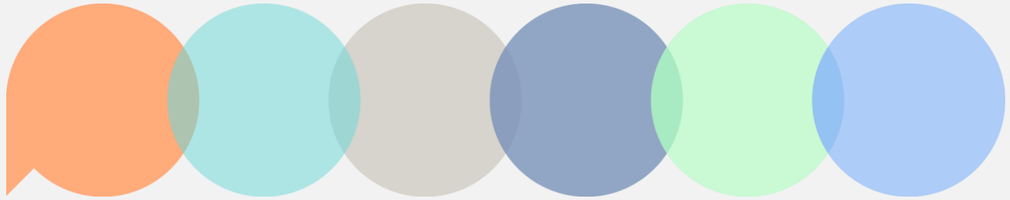
Climate Framework



A Cross-Industry Action Group Initiative

Mina Hasman

ARB, RIBA, LEED BD+C, BREEAM, WELL AP

- *Sustainability Lead*, **SOM**
- *Board Member*, **UKGBC**
- *Climate Change Expert Advisor*, **RIBA**
- *COP26 Task Force Member*, **UNEP/GlobalABC**
- *Sustainability Expert*, **CAA**
- *Climate Change Committee Member*, **CIC**
- *Tutor + Visiting Critique*, **UCL, AA, UEL, University of Westminster, Cardiff University**
- *Whole Life Carbon Committee Member*, **WorldGBC**
- *Intelligent Buildings Group Member*, **CIBSE**
- *Sustainability Group Member*, **ACE**
- *The Cross-Industry Action Group Lead*, **Climate Framework**

CLIMATE FRAMEWORK
CROSS-INDUSTRY ACTION GROUP

Challenges of our time

Time + Scale ⟶ **Capacity?**

Solutions for our future

Multi-faceted + **Holistic**

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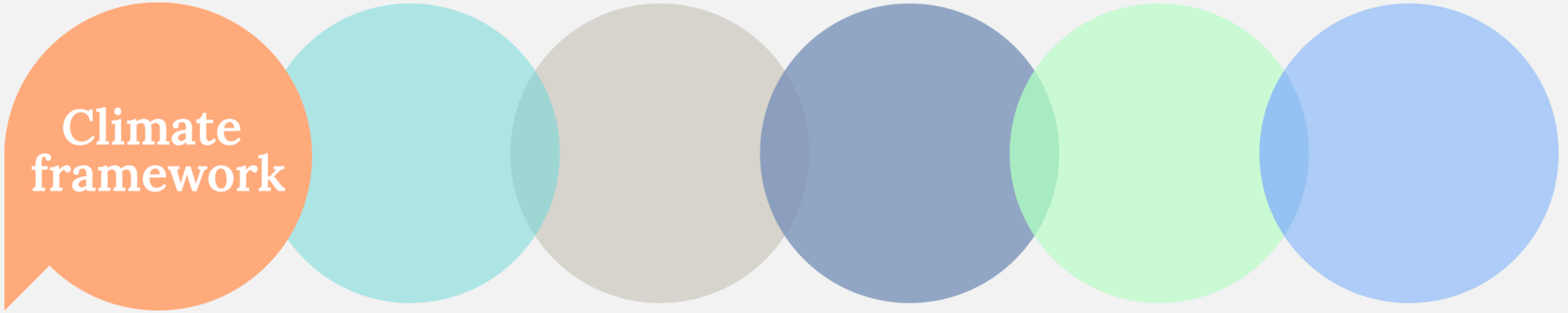
Reality of context

1. *knowledge is not* ***uniform***
2. *knowledge is not* ***continuous***

Solutions for our future

Consistency + **Collaboration**


Climate
framework

Cross-pollinating experience + expertise

A ***transdisciplinary*** *initiative* ***uniting*** *building* ***industry*** + ***academia*** *to* ***upskill*** *and build our collective capacity for* ***climate action***.

In consultation with

530^{+} *individuals*

+

Supported by

90^{+} *organisations*

A multi-generational approach

Generation Z
Student

Generation Y
Tutor

Generation Z
Professional

Leveraging industry

Building on existing content

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Creating a community

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Defining a common language

Our mission

A shared curriculum framework:

1. *to provide **a holistic knowledge base** that can equip the **built environment 'actors'** + **academia** with effective knowledge + skills to **accelerate** the transition to **net zero carbon** built environments – fast and at scale.*

Collaboration

Bringing academia

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Our mission

A shared curriculum framework:

*2. to create a **thread of knowledge** weaved through **from academia to industry** – in order to ensure **continuity + consistency** in the way knowledge is built, disseminated, and built upon throughout different stages of a **built environment professional's life**.*

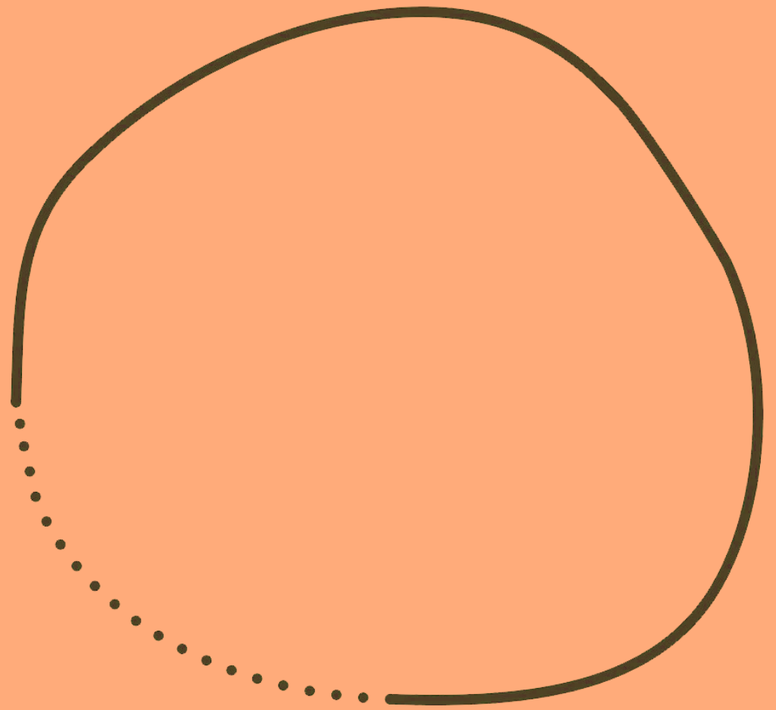
Consistency

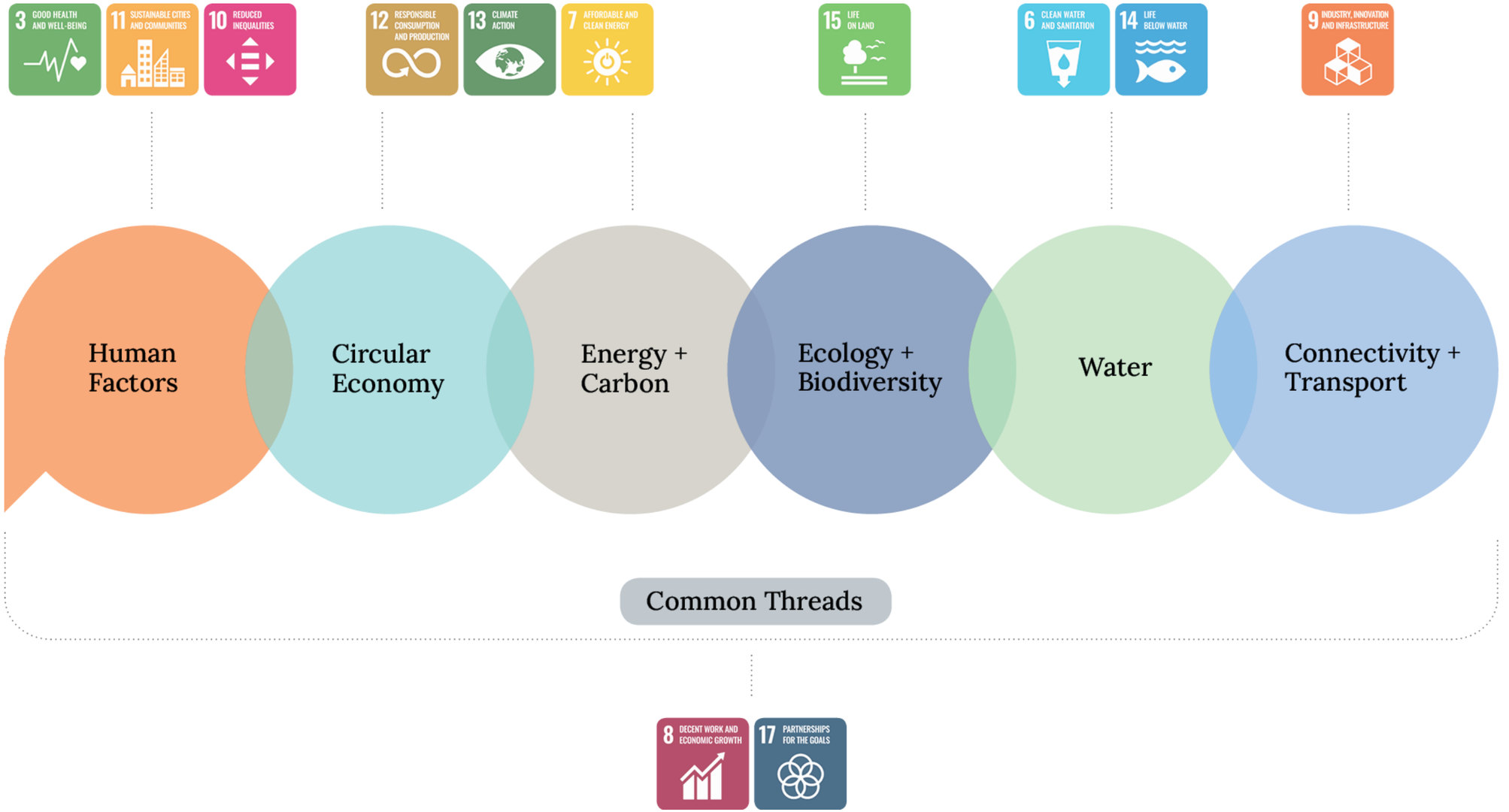
Our mission

Bringing ***know-hows***

+

Closing ***feedback loops***





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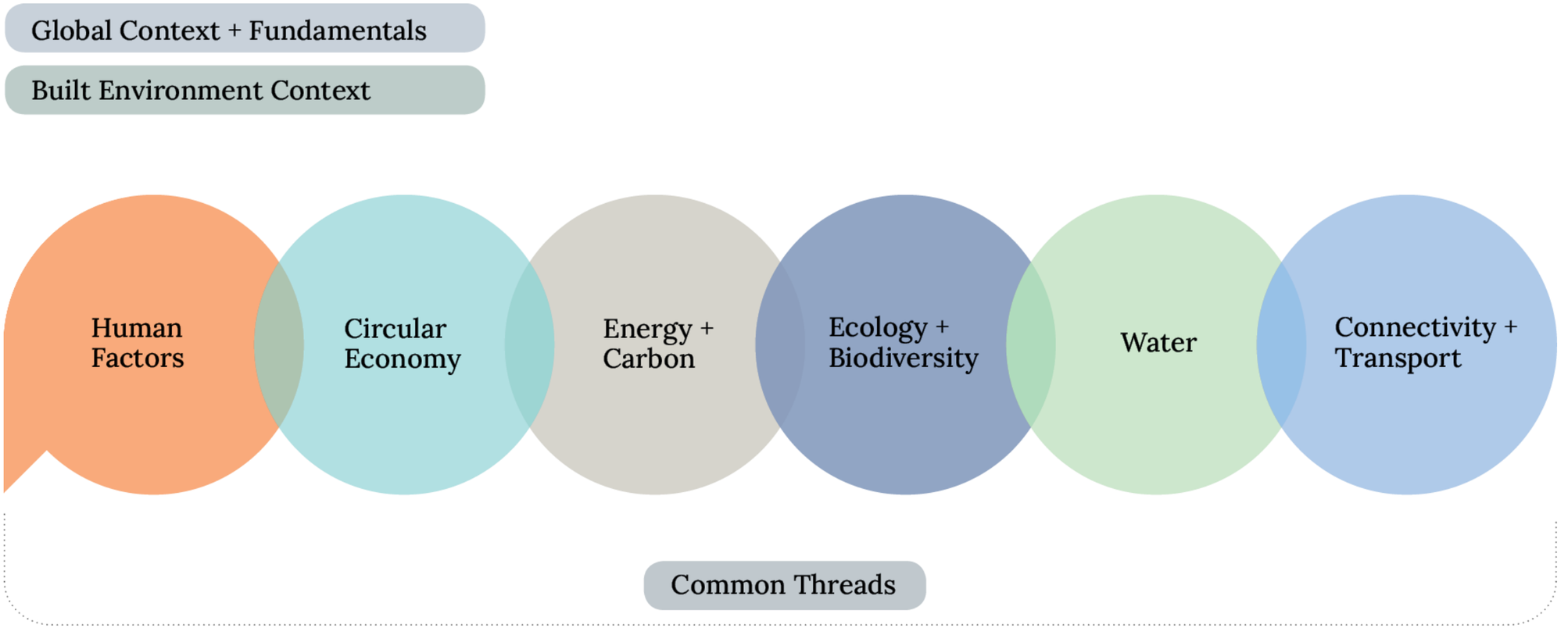

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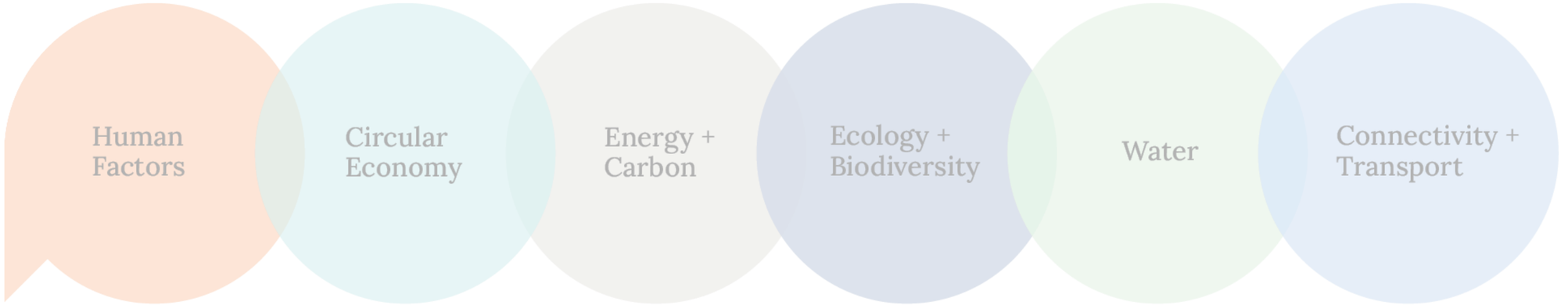
Global Context + Fundamentals

Built Environment Context

Climate Fundamentals
Systems Thinking + Resources
International Policy
Financial Risks, Opportunities
Net Zero Economy



Common Threads

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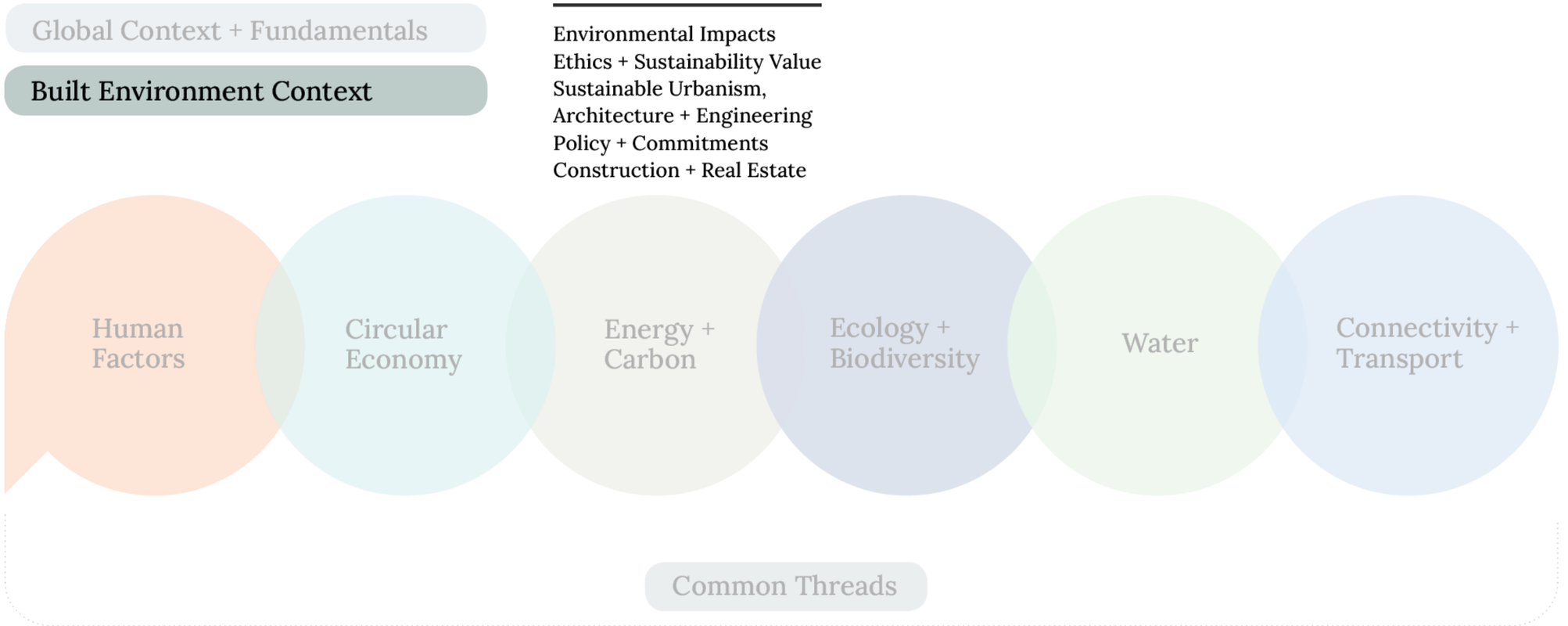

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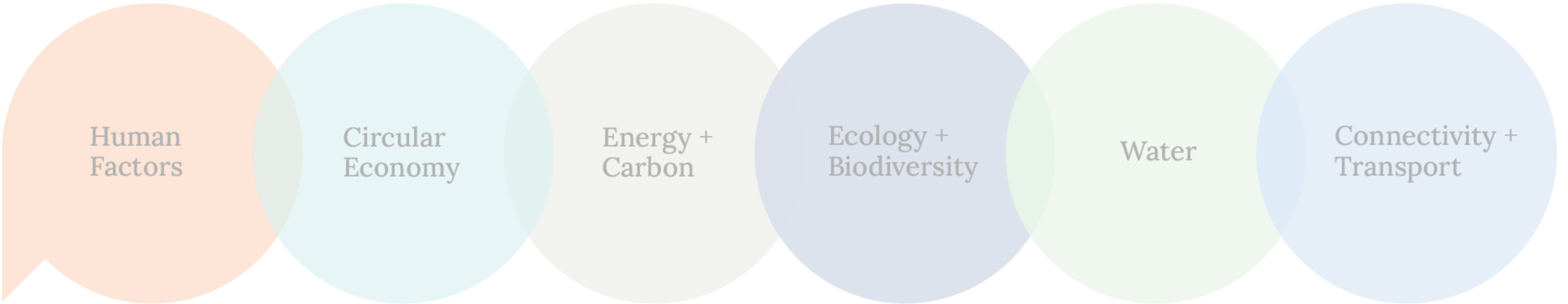
Global Context + Fundamentals

Built Environment Context



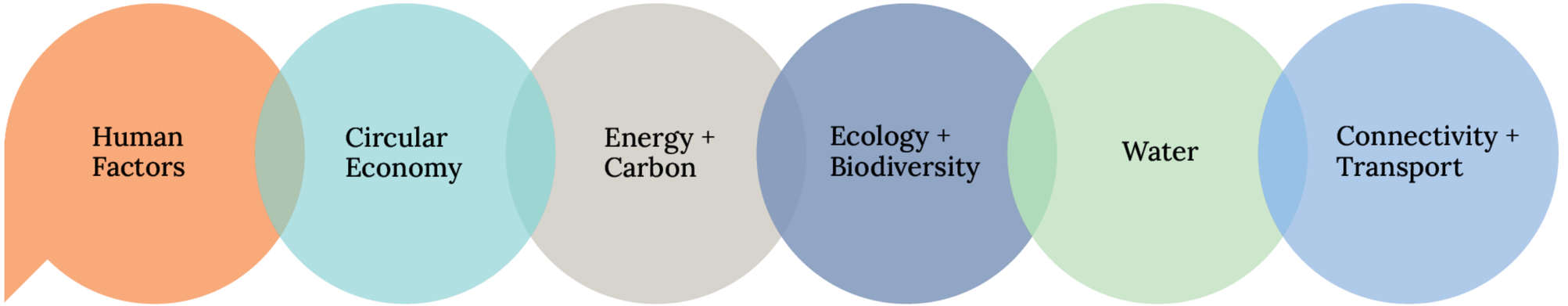
Common Threads

Retrofit (Adaptation + Reuse)
Climate Justice + Inclusive Design
Designing for Performance
Planning for Climate Extremes
Building Safety
Process, Investment + Procurement
Research, Innovation + Partnerships

Global Context + Fundamentals

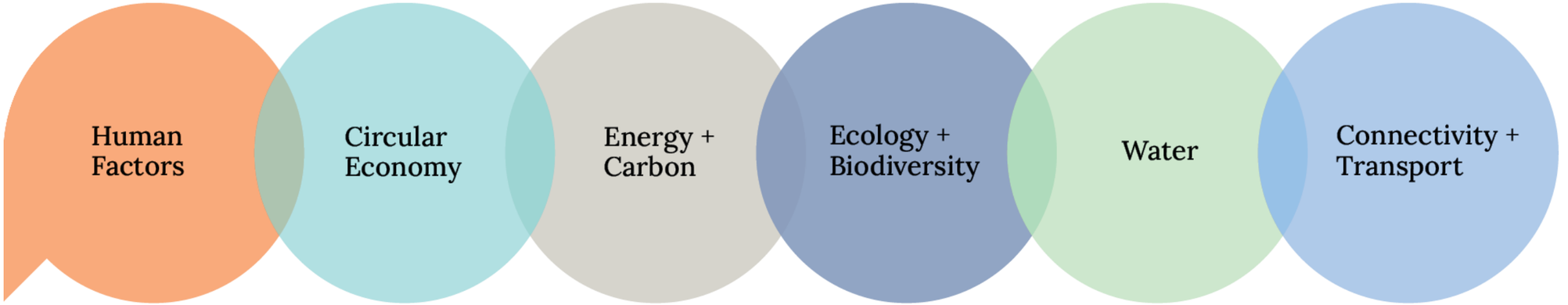
Built Environment Context

Outcomes



Common Threads

Outcomes



Human Factors	Circular Economy	Energy + Carbon	Ecology + Biodiversity	Water	Connectivity + Transport
Biophilia + Sense	Resource Efficiency	Passive Design	Biodiversity	Water Cycle	Site Location
User Experience	Flexibility + Adaptability	Active Design + Systems	Nature-Based Solutions	Water Recycling + Reuse	Walkability
Health + Wellbeing	Impacts	Whole Life Carbon	Land Use	Water Harvesting	Infrastructure + Planning
Communities	Waste as a Resource	Offsetting	Bio-Regional Urbanism	Water Pollution	Low Carbon Transport
Social Value	Sourcing	Iterative Design	Food Production	Climate Change Impacts	Future of Transportation

A unique learner's journey

I want to understand how the built environment contributes to climate change.

I want to design a net zero carbon building, but I don't know how.

I want to become an expert on health-focused built environments.

A unique learner's journey

Tier 1

To raise awareness, develop basic knowledge and understanding

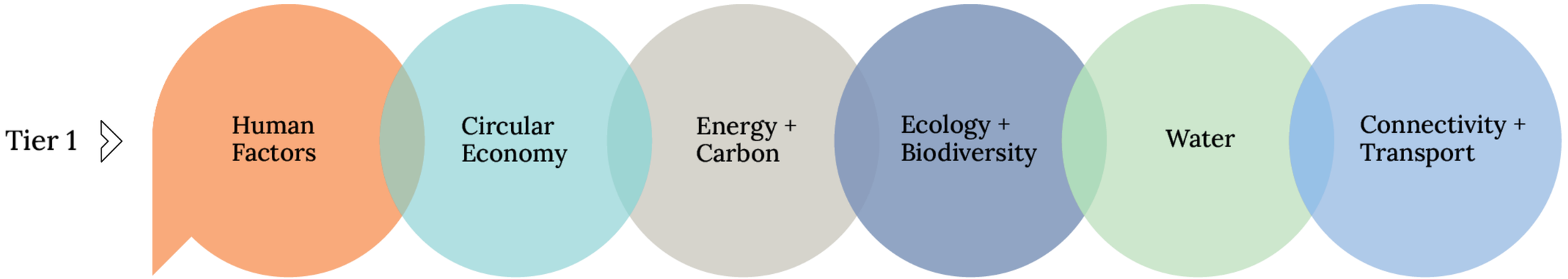
Tier 2

To gain industry-specific knowledge and skills together with the ability to apply this in practice/ academic work

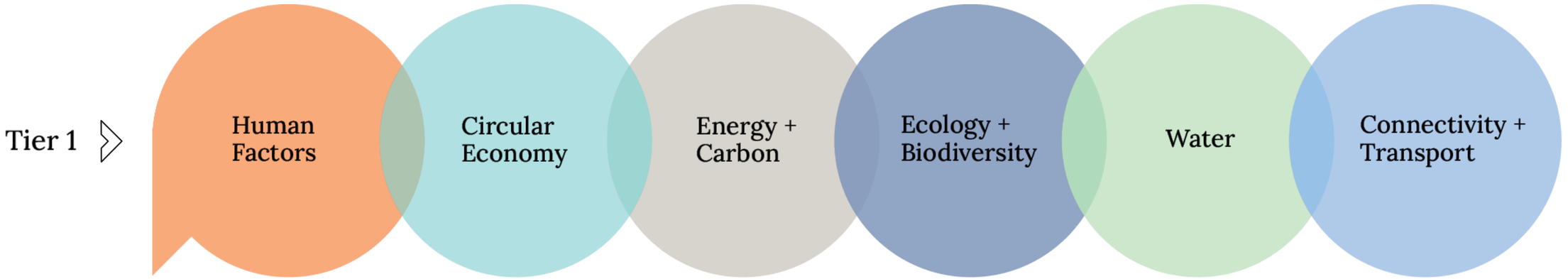
Tier 3

To develop a well-rounded knowledge base + build expertise together with the ability to analyse, evaluate and use the knowledge gained in a creative manner

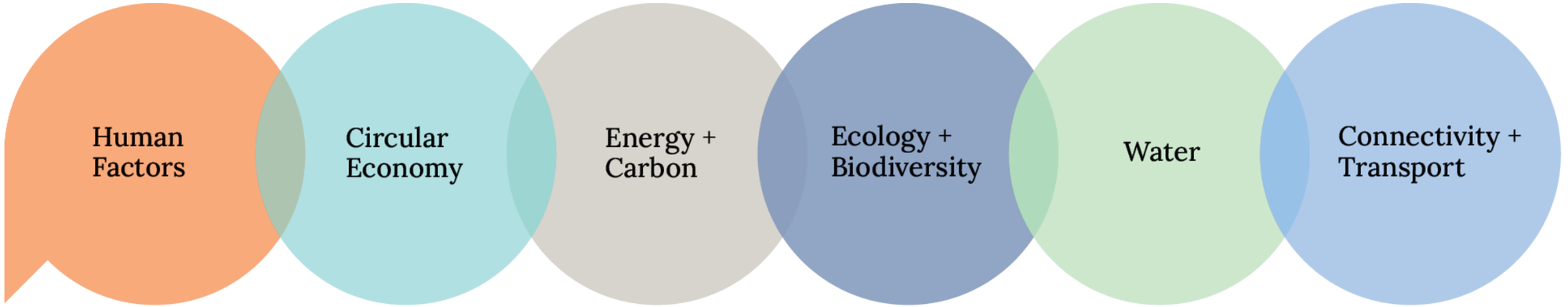
‘Climate aware’



‘Climate adopter’



‘Climate expert’



Tier 2 / Tier 3					
Biophilia + Sense	Resource Efficiency	Passive Design	Biodiversity	Water Cycle	Site Location
Natural Forms	Waste Reduction	Climate + Microclimate	Habitat Evaluation	Water Sources + Use	Brownfield Sites
User Experience	Flexibility + Adaptability	Active Design + Systems	Nature-Based Solutions	Water Recycling + Reuse	Walkability
Occupant Patterns	Prefabrication	Energy Demand	Ecosystem Services	Wastewater Treatment	Compact Development
Health + Wellbeing	Impacts	Whole Life Carbon	Land Use	Water Harvesting	Infrastructure + Planning
Air Quality	Carbon + Chemicals	Upfront Impacts	Open Space	Rainwater Use	Mobility Hubs
Communities	Waste as a Resource	Offsetting	Bio-Regional Urbanism	Water Pollution	Low Carbon Transport
Just Transition	Waste-to-Product	Carbon Pricing	Place-based Design	Preventation + Control	Actieve Travel
Social Value	Sourcing	Iterative Design	Food Production	Climate Change Impacts	Future of Transportation
Return on Investment	Cultural Capital	Energy Modelling	Productive Landscapes	Water Scarcity	Low Carbon Regeneration

Climate Framework™

Our Vision

Climate Framework is adopted by **all** by the end of **2022**.

RIBA Climate Literacy 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.

https://www.architecture.com/knowledge-and-resources/resources-landing-page/mandatory-competences

Carbon Zero: the professional institutions' climate action plan

Climate Framework™

WS1

Co-ordinated by UCEM

The plan focuses on professional and cross-disciplinary education at undergraduate and postgraduate levels and the development of a wide-ranging collective CPD programme for the industry.

It is anticipated that tertiary education and professional qualification requirements will need to be substantially revised to focus on environmental performance and that the existing professional sector will have to take part in comprehensive training programme for net-zero delivery alongside new building safety requirements.

Education & qualification

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

g	A cross-industry climate framework curriculum to be agreed and adopted
h	A shared CPD curriculum, based on the framework and including specialist sub-modules, to be established
i	All institute and registration body agreement to be brokered for professional education to ensure climate change & biodiversity competence is achieved as a default requirement
j	Training materials to be developed and shared, supported by the PIs

g	A cross-industry climate framework curriculum to be agreed and adopted
h	A shared CPD curriculum, based on the framework and including specialist sub-modules, to be established

Short-term Medium term Longer term

Carbon Zero: the professional institutions' climate action plan

https://cic.org.uk/networks-and-committees/climate-change-panel.php

What's offered?

Engagement with:

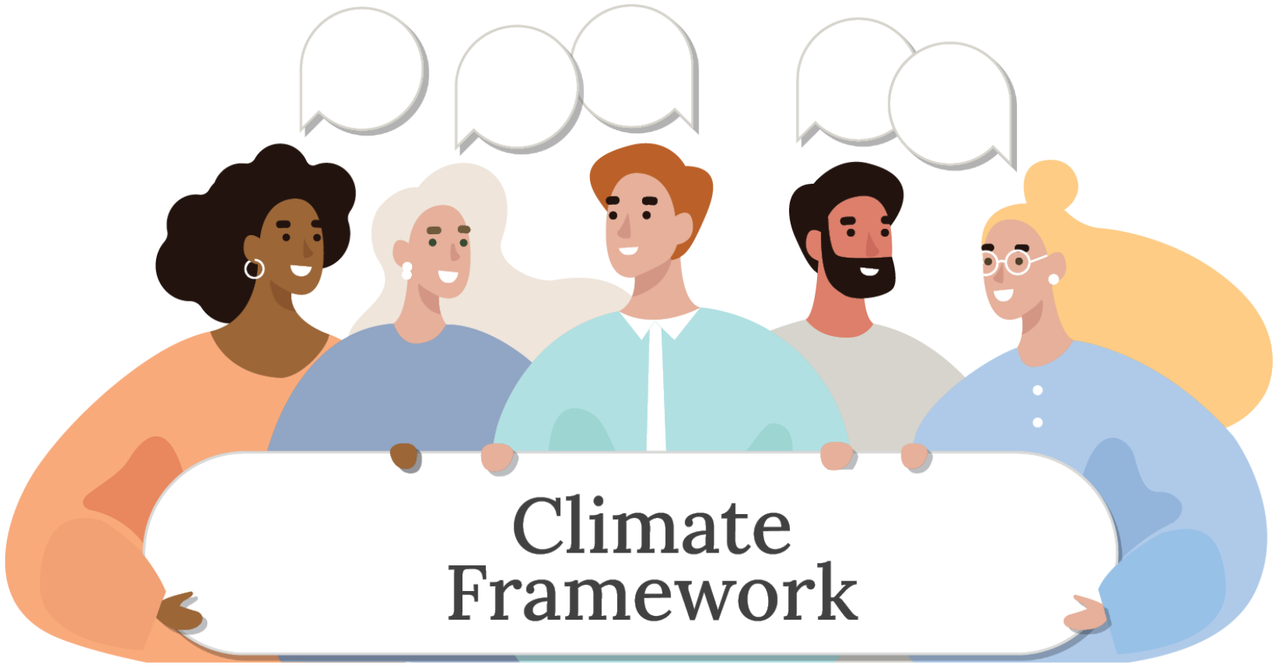
- ***Professional Institutes*** *to inform their learning/CPD Programmes*
- ***Academia*** *to help identify programme gaps, upskilling needs + to inform academic curricula*
- ***Local Authorities*** *to help identify their upskilling needs, support them connect with relevant organisations (such as WorldGBC, UNEP/GlobalABC+ others)*

Supporting organisations

Endorse:

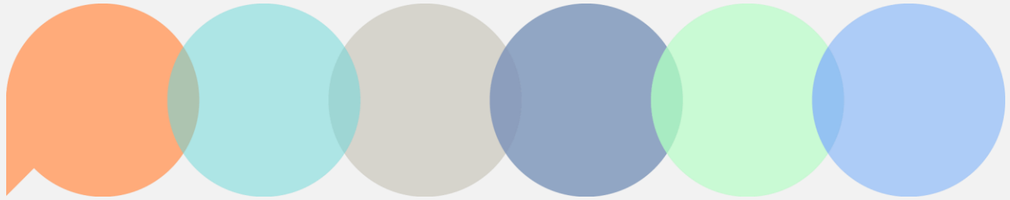
- ***The Framework*** *as a list of topics – the holistic knowledge base – for every built environment professional (currently practising + future professionals in school) to upskill + build collective capacity*
- ***The Initiative*** *as a coalition/alliance – the transdisciplinary collaboration – for the building industry + academia to deliver collective climate action*

Join our community



Join us: https://www.climateframework.com/join-us

Thank you.



www.climateframework.com

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