



ICE Database: Status Update & Upcoming Changes

Jon Burrow & Edwin Lowe

circularecology.com

Today's Webinar

- Introduction
- Background to the ICE Database
- Latest Updates & Changes to ICE
- Release of ICE Educational V5.0
- Introducing the IC+ Database
- Next Steps & Plans for the Future
- Q&A

Your Presenters Today



Jon Burrow

Head of Carbon Accounting

- *Over a decade working in carbon reporting and carbon reduction strategies*
- *Oversight of the ICE Database*



Edwin Lowe

Delivery Manager

- *10+ years' experience in sustainability*
- *Worked for contractors, infrastructure clients and in consulting*



Background & Introduction

Circular Ecology – Introduction



Environmental consultancy, founded in 2013

Offer a range environmental services:

- Organisational Carbon Footprints, Scope 1, 2 & 3
- Net Zero Carbon Strategy
- Carbon Footprint Verification & Assurance
- Whole-Life Embodied Carbon Assessments for Construction Projects
- Product Carbon Footprints & Life Cycle Assessments (LCA)
- EPD Development & Publishing
- Carbon Footprint Database (library) Development
- Online E-Learning Training Courses
- Carbon Offsetting and Tree Planting



Hosts the Inventory of Carbon & Energy (ICE) Database

Celebrating 850,000 Trees Planted

Facilitated the planting of **over 850,000 trees**

In partnerships with **Eden: People+Planet** and **Ripple Africa**

Tree planting available on our online store - **£1 (ex. VAT) per tree**

25% of tree planting sales diverted to Circular Ecology's **SCRI fund**



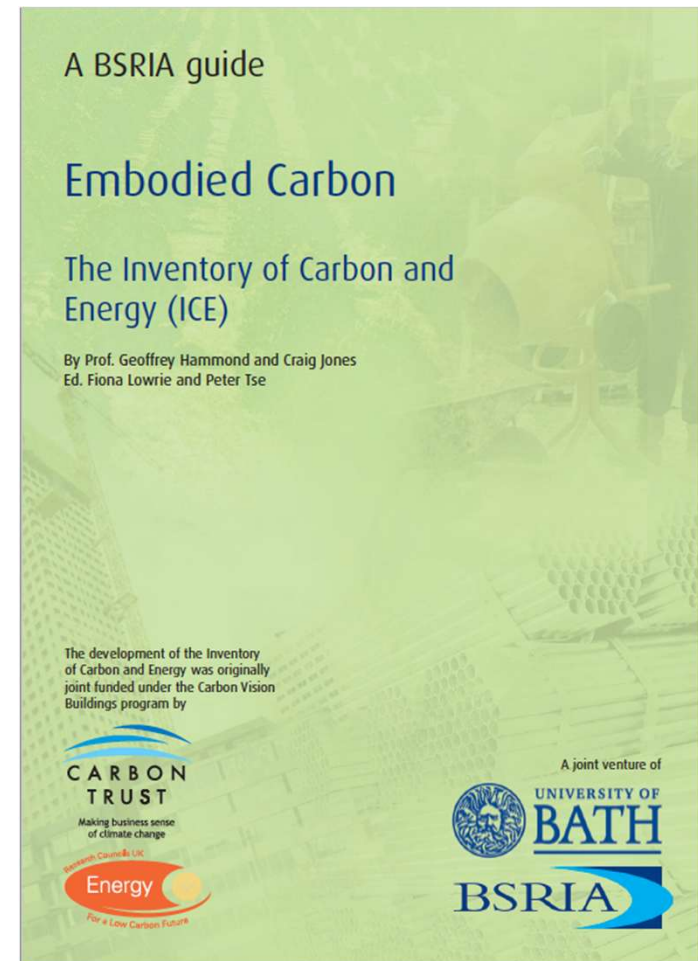


Background to ICE

Brief Introduction to the ICE Database

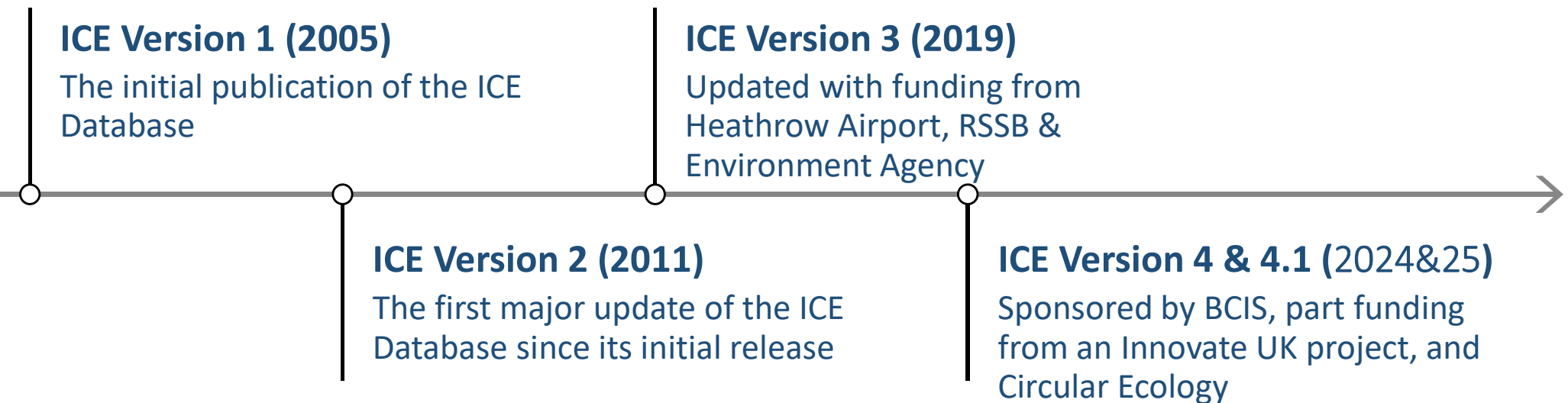
The Inventory of Carbon & Energy (ICE)

- An **embodied energy and carbon database** for building materials.
- First version released in 2005 by Dr Craig Jones and Professor Geoff Hammond, University of Bath.
- Data for over **200 material categories**, primarily for construction materials.
- BSRIA hardcopy published in January 2011.



Timeline of ICE

The ICE Database hasn't been able to provide regular updates with only 3 major updates over 15 years:

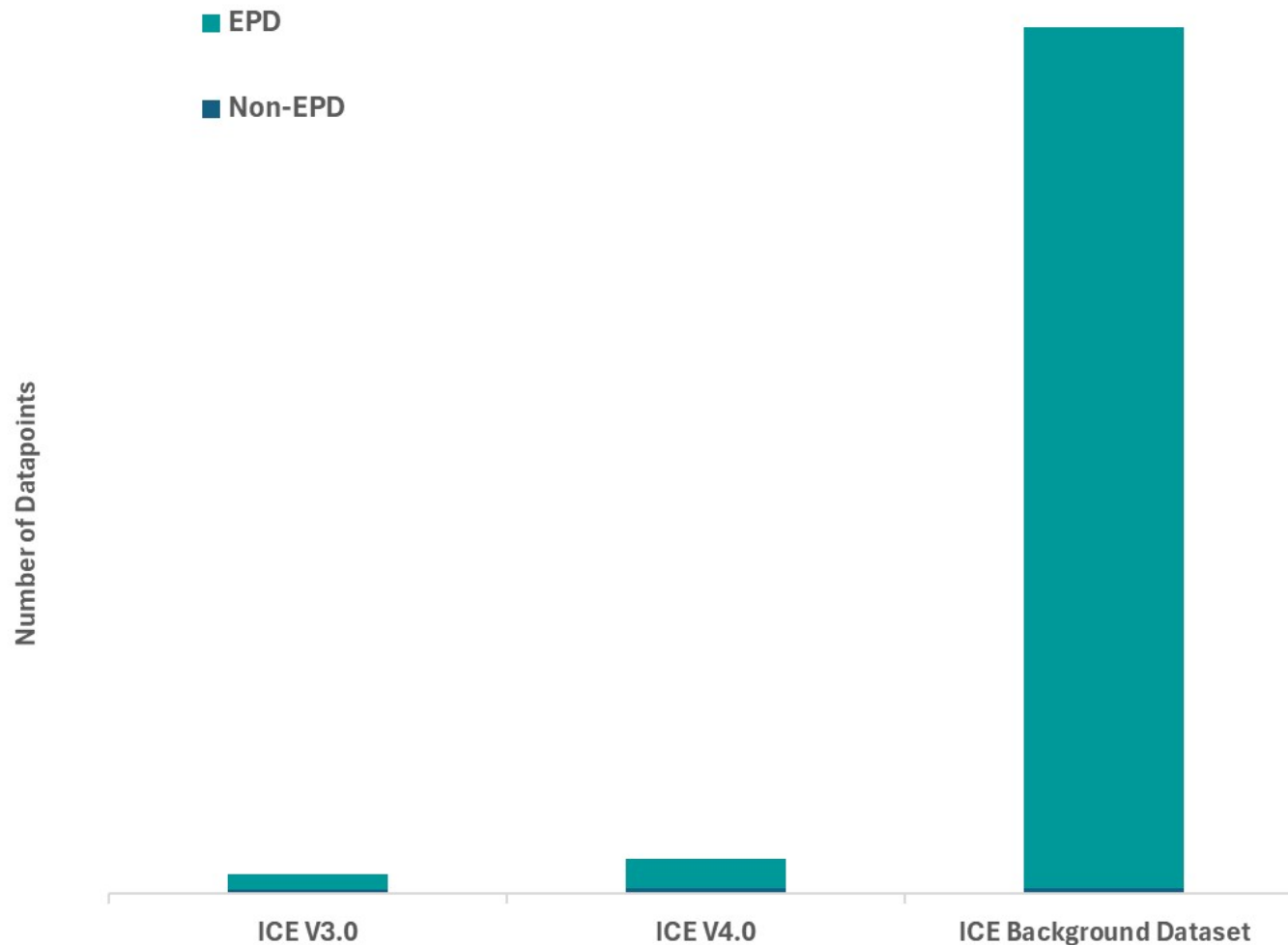


Reality: The landscape of carbon has changed immeasurably over this time -

- Expectations are higher than ever.
- Increasing focus on adherence to standards.
- Exponentially more data available.

Changes in ICE Background Dataset

We could achieve a lot more with sustainable funding...



Current Status of ICE

Situation: The ICE Database has not had sufficient resource to be able to keep up with changes under its current funding mechanisms.

- Yet it remains a well-used database, accessed by thousands of companies, tools, software, and platforms globally.

Reality: The database needs to update all the current and older data and needs to be updated more regularly going forward.

We have already explored many ways to raise funds to update the entire the ICE Database -

- In 2024, we introduced a tiered ICE Supporter system to allow us to sustainably allocate resource to make updates.
- Launched the Scaling Carbon Reduction Initiative (SCRI)

Previous ICE Funders and Supporters

Heathrow



BCIS



ICE Supporters System

Tier Level	Tier Name	Contribution, last 3 years (£ ex. VAT)	Current Supporters (ICE V3 noted for 1 year)
N/A	Standard Supporter	Defined above	Anglian Water, Hope Solutions, NBS
N/A	Data Partner	Donation of data	
1	★ Contributor	5,000 – 9,999	RSSB, Environment Agency
2	★★ Enabler	10,000 – 24,999	Innovate UK
3	★★★ Activator	25,000 – 49,000	BCIS, Heathrow Airport

circularecology.com/ice-supporter-system.html

Changes to Funding Approach

Situation: Maintaining the database to modern standards requires sustained resources beyond what the free model can support.

- ICE Database supporter system and Scaling Carbon Reductions Initiative (SCRI) still leaves a big gap and isn't a sustainable model.

What is Changing: We are moving to a freemium model, where –

circularecology.com/news/important-ice-database-announcement



The **ICE database** will become the “free” component but now comes with strict limitations on use and application (i.e. ICE will become **educational-use only**).



Launch of the **IC+ database**, which is a new premium database, where users will require a valid (paid) licence to use the data for all commercial and other non-educational purposes.



ICE Educational (V5.0)

Latest update on the ICE Database

ICE Educational (V5.0) Release

ICE Educational V5.0 database is now available.

Released 30th June 2026

circularecology.com/embodied-carbon-footprint-database.html

Today's insights:

- Updates to Terms of Use
- Updates to the data included
- Updates to the file structure
- Status update on other future changes

ICE Educational – Terms of Use

Main Change to Terms of Use - The ICE Database shall now only be used for educational purposes (i.e., learning, teaching, viewing), and it no longer supports any other types of use.

circularrecology.com/terms-of-use.html

Permitted Use - The ICE data is not suitable for commercial use, and all commercial use must instead refer to the IC+ database. Therefore:

The ICE Database is not permitted for use on commercial projects, in software or tools (unless 100% a teaching aid only), or in research or any carbon calculations, other than for the purposes of teaching, or learning the subject of embodied carbon.

Note - all existing ICE (V4.0 & 4.1) licences will be automatically extended to 30th September 2026, to ensure a smooth transition for organisations.

Educational and Non-Educational Use



Educational Use: Only for 100% educational purposes such as learning, teaching, self-interest.



Non-Educational Use: Any other non-educational and commercial uses, such as non-academic research, consultancy, software, tools, apps, platforms, ...etc (non-exhaustive list).

ICE Educational V5.0 is Educational Use only and is not suitable for commercial or other non-educational uses.

Updates to the Carbon Data

- ICE Educational V5.0 retains most of the data from ICE V4.1.
- All previous ICE V2.0 now removed, due to age of this data.
- Still provides carbon (A1-3) data for many material types.
- Published carbon data is derived from -
 - i. individual source references (e.g., industry LCAs)
 - ii. averages of collected data
 - iii. calculated values
- Some supplementary info kept alongside carbon values.
- Individual DQI scores remain (timestamped from V4.1).

ICE V2.0 Data Removed

Material categories removed from ICE Educational V5.0:

- Brass / Bronze / Copper
- Carpet / Linoleum
- Iron / Lead / Tin / Titanium / Zinc
- Plastics (updated with a new "Plastics, General" value)
- Paper
- Sealants & Adhesives
- Stone / Soil / Lime

Updated values for these materials will instead be incorporated within future versions of our commercial database (IC+).

Other Notable Updates

Some other notable updates to ICE Educational V5.0 are:

- Removal of the "Machine-Readable" tab.
- Updates to method notes.
- Removal of individual background datapoints & references.
- Inclusion of an example references table.
- Removal of certain charts and statistical analysis from the material profiles.
- Withdrawal of the excel-based concrete calculator (although the older online calculator is still available here):

circularecology.com/concrete-embodied-carbon-footprint-calculator.html



Introducing IC+

**New Commercial & Non-Educational Use
Embodied Carbon Database**

Introduction to IC+



Development of the **IC+ Database** initially follows the same principles and structure as the ICE Database has done historically.

Key Elements of IC+



- Generic, representative carbon values for a range of common construction materials
- Developed based on analysis of tens of thousands of published EPDs (Environmental Product Declarations) and other non-EPD datapoints
- Expected coverage of 200+ datapoints at initial launch
- More frequent updates and expansion to meet needs of users and changing landscape of carbon
- Data quality and consistency

IC+ Material Coverage

IC+ will provide generic values for materials under the following categories:

Aggregate	Aluminium	Asphalt
Bitumen	Carpet	Cement
Ceramic	Concrete	Copper
Glass	Iron	Linoleum
Natural Insulation	Non-Natural Insulation	Paints & Coatings
Plastics	Plaster	Rubber
Sealants & Adhesives	Steel	Stone
Timber		

We expect to be in the position to expand this coverage based on the needs and feedback from early IC+ users.

IC+ for Commercial Use



Valid licence required to access and use IC+ data (i.e. for all Commercial and Non-educational purposes).



Scaled fees for annual licences are based on -

1. Use case - i.e. internal use (calculations and internal tools & reporting) vs. external use (external tools, platforms, data providers etc)
2. No' of expected end users (including external users)
 - For reference, £800 for a single user, scaling down significantly as no' users increase

You can contact Circular Ecology now and complete our survey to understand license fees for your organisation and use case.

Next Steps for IC+ Launch



Circular Ecology's Commercial Embodied Carbon Database IC+ will be launched later in **Summer 2026, with annual licences available immediately upon launch.**

circularecology.com/IC-Plus.html



Those with existing ICE Database registrations can continue to use the ICE Database under the current Terms of Use until **Wednesday 30th September 2026**



An IC+ Methodology Report will be released to all licence holders following the launch of IC+.

Summary of Updates

ICE Database (available now)

- Current funding approach for ICE was not sustainable.
- **ICE Educational V5.0 was released 30th June 2026.**
- This includes important updates to Terms of Use - ICE Educational V5.0 is **now Educational-Use only** and no longer supports any Commercial or Non-educational use.

IC+ Database (coming soon)

- IC+ will be launched as Circular Ecology's Commercial Embodied Carbon Database later in the **Summer (2026)**.
- IC+ will require a valid **license to access** and use for all Commercial and Non-educational purposes.
- You can request and complete the IC+ survey, to understand what the licence fees will be for your organisation and use case.

Today's Webinar - Recap

- ✓ Introduction
- ✓ Background to the ICE Database
- ✓ Latest update and changes to ICE
- ✓ Release of ICE Educational V5.0
- ✓ Introduction to the new IC+ Database
- ✓ Summary of plans and next steps

Next Webinars

Next Webinars -

- Summer break – with more webinars to follow later in **Q3 2026**.

Recap of previous webinars - watch these again on our website...

- Whole Life Carbon Assessments of Buildings: What You Need to Know
- An Overview of Carbon Neutrality: Measure, Manage, Offset, Improve
- An Introduction to the Circular Ecology EPD Programme
- Organisational Carbon Footprints - From Measurement to Meaningful Action
- Product Carbon Footprinting, LCA & EPDs: A Practical Introduction
- Making Credible Carbon & Environmental Reduction Claims Using Life Cycle Assessments

Keep an eye on our networks for more information

- Website - circularecology.com
- LinkedIn - linkedin.com/company/circular-ecology



Q&A

Please use the Q&A interface to ask your questions



Thank you for watching

Sign up for more information on all future updates

circularecology.com/newsletter.html

circularecology.com/embodyed-carbon-footprint-database.html

circularecology.com/IC-Plus.html