



BioTwin

Bio-materials for Low-Carbon Construction

April 2026



Build



Low Carbon
Manufacture



BioMaterials



THE PROBLEM

Cut carbon in buildings is urgent — steel still dominates commercial interiors

The construction industry is being pushed to decarbonise — but one of its most widely used materials remains unchanged.

- Tenders increasingly require low-carbon materials
- Steel is a major source of embodied carbon
- Structural systems are hard to change
- Interiors are rebuilt frequently (commercial + retrofit)
- Partition walls use steel studs at massive scale
- Replaced every 10–15 years — repeating the carbon impact
- One of the fastest ways to cut carbon
- No drop-in alternative exist



SOLUTION

A low-carbon replacement for steel studs

BioTwin replaces traditional steel studs with a hemp-based alternative that cuts carbon without changing how buildings are designed or built.

- **~70% lower carbon** than steel — a simple switch with immediate impact
- **Works exactly the same** on site — fits existing systems, no new tools or training
- **Built to perform** — strong, fire-safe, and delivers excellent acoustic performance
- **Cost-competitive** — reaches parity at scale, with a clear path to being cheaper than steel



PRODUCT

Product Data

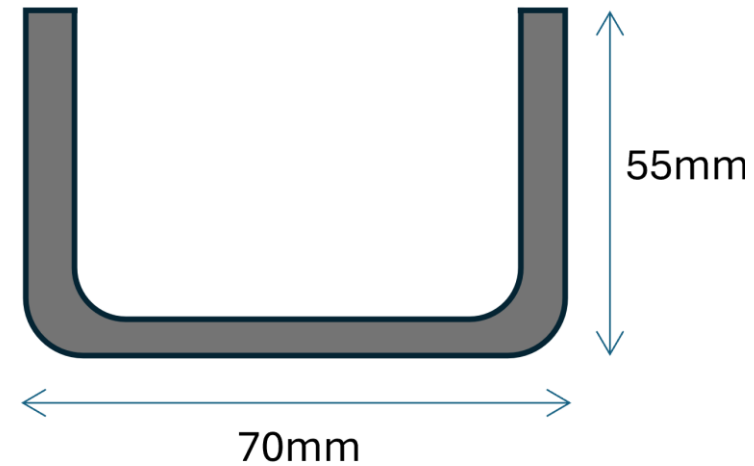
BioStud 70: hemp-based wall stud

Material

**Hemp Fiber and Shiv 30%
Binder and FR powder**

Key Benefits

- ✓ 71.5% lower in carbon than conventional steel studs
- ✓ Acoustic and thermal enhancement
- ✓ Excellent tensile strength



Length: 2500mm – 4m at scale (4mtr lengths in development)	Weight: 0.62kg/lm
Width: 70mm	Colour: Light brown finish
Thickness: 4-5mm	Storage: Indoors and kept in dry conditions

PRODUCT

Biostuds direct replacement for steel studs and do not require material changes in workflows or specifications

- Same dimensions
- Same workflow
- No redesign required



70mm C stud British Gypsum



Proven-
71.5%
Lower Carbon
than Steel!

READY FOR MARKET

Proven in market. Backed by data
Protected by IP

- 4 pilot projects delivered — UK + New York, with leading commercial clients (e.g. British Land, HSBC)
- Tested and validated — fire, structural (lateral load)
- acoustic, and thermal performance
- ~71.5% lower embodied carbon vs steel — independently verified (Imperial + BRE)
- Patent-pending technology — UK filings + international (PCT) application

NEW YORK

- NYEDC
- BAT Terminal
- Retro-Fit
- Display pilot

LONDON

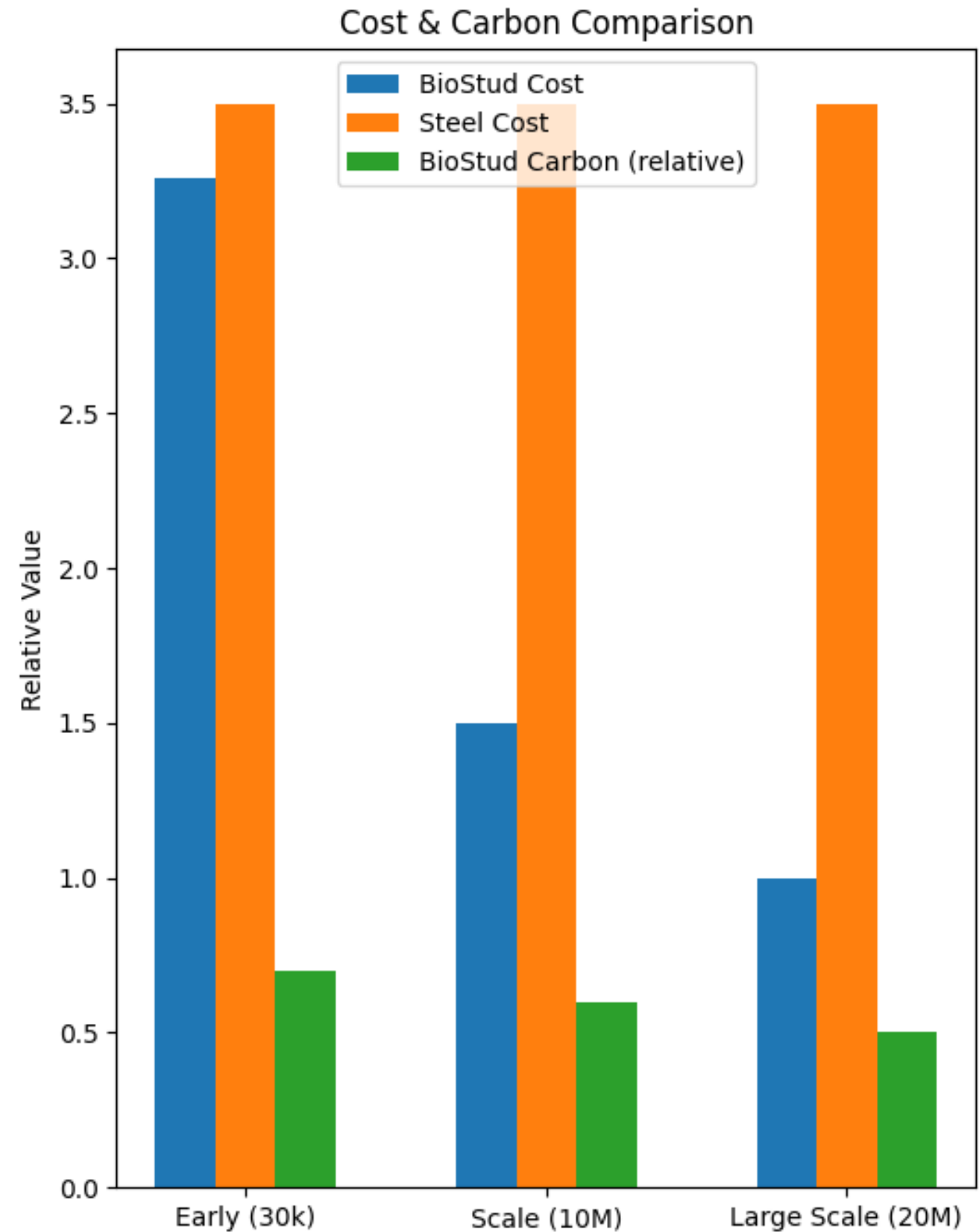
- British Land
- Imperial
- HSBC
- Commercial
- Retro – Fit

COST COMPETITIVE

**We reach cost parity early
then undercut steel at scale**

BioStud follows a clear cost-down curve driven by volume - while carbon continues to fall. In contrast, steel remains high carbon and increasingly cost-volatile.

- **~30k units → cost parity (*early rollout*)**
- **10M units → <50% of steel cost**
- **20M units → <33% of steel cost**
- **As we scale, costs fall and carbon reduces further**



INVESTMENT

**Raising €2.5–3.5m (£2.2 to £3.0 million)
to scale production commercial rollout
to reach the next phase of development**

Use of funds:

- **Production line + machinery** — build and commission initial manufacturing
- **Key hires** — COO, Production, and Sales leadership
- **Certifications + IP** — market approvals and international patent filings
- **Facility + operations** — production site and full operational readiness



Funding

Early funding and grants to accelerate our technology and go-to-market.

£250k

Investor



£402k+

Grants



Five-year projections for revenues, EBITDA and project volumes

Year	Revenue	EBITDA	No of Projects
2026	£420,000	-£284,572	42
2027	£5,130,000	£669,490	171
2028	£19,125,000	£5,899,282	382
2029	£47,250,000	£20,980,248	945
2030	£110,250,000	£61,740,828	2205





Matthew Elton - CEO

Co-founder, manufacturing & product leader

- ✓ 20+ years in design,
- ✓ manufacturing, construction
- ✓ Built and exited multiple businesses
- ✓ Specialist in materials and production at scale



Jane Goddard - CTO

Testing, certification & product strategy

- ✓ Deputy CEO, Building Research Establishment (BRE)
- ✓ Leads certification, compliance, and system performance
- ✓ Deep expertise in construction standards



Henry Schmeltzer - NED¹

Finance, structuring & global expansion

- ✓ 40+ years in finance, banking, and trade
- ✓ Expert in international structuring (Malta, US, EU)
- ✓ Supports scale, capital strategy, and governance



Burcu Karaca - Advisor

- ✓ CEO, BPREG Composites
- ✓ Hemp and materials specialist



Matteo Turi - Advisor

- ✓ Experienced CFO
- ✓ Capital strategy specialist

¹) To be appointed



BioTwin

Can replace steel at scale

matt@biotwin.co.uk

www.biotwin.co.uk

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