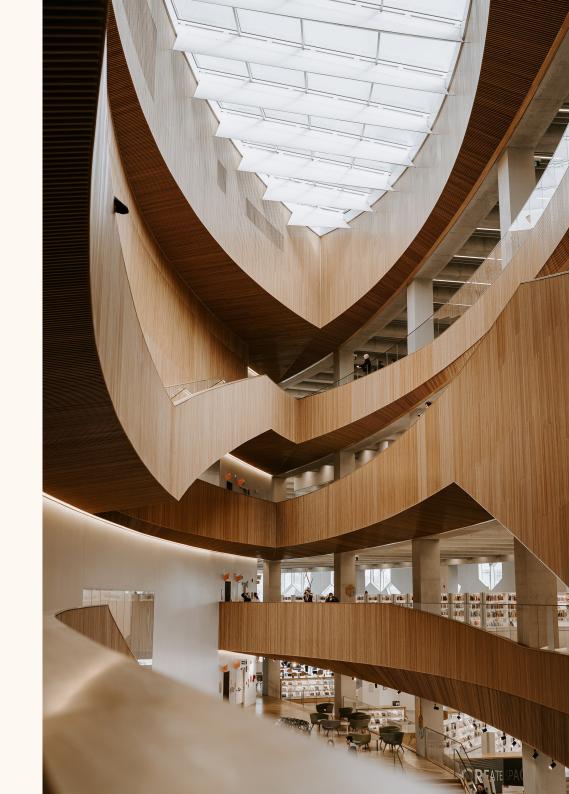
bimobject®

Who are the key players in BIM projects?

A manufacturer's quick guide to the key stakeholders in BIM.



Let's talk about BIM.

Do you ever wish that you could plug a cord into your brain and learn stuff in seconds? Well, we all do at times. Unfortunately, science hasn't made it that far yet. What we can offer you instead, is a guide into BIM: Building Information Modelling. We won't use overly technical jargon or get into the nitty-gritty details. Just easily digestible information to get you up to speed and get you speaking the same language as architects, engineers and contractors.

This is *your* fast-track guide into the BIM basics. We aim to give you, the manufacturer:

- ✓ an understanding of what BIM is and what it isn't
- ✓ Insights into who is using BIM, how and why
- ✓ How you, as a manufacturer, can take part in the BIM process.

Let's jump into it and learn.

A swift introduction to BIM.

The acronym, process and key components

What is BIM?

BIM, short for Building Information Modelling, is a digital process where information about every single component in a building and construction project is managed across the project team and throughout its lifecycle.

Sounds complicated already? It doesn't have to be. Let's keep the focus on the keywords: **digital**, **process and lifecycle**.

The **digital** building **process** gives architects, engineers, contractors and owners/operators (AECO) precise information about a building's physical and functional components. This, in turn, makes it easier to **plan**, **design**, **build**, **maintain** and **demolish** in a smarter, faster and more sustainable way.

But it's not all talk and no walk: national policies are popping up, adoption is skyrocketing and manufacturers are joining the race to reach BIM-fluent specifiers. It's not just that BIM will play a lead role in the future. BIM is the future of the construction industry. How can you, as a manufacturer, get a head start in the race? Well, you need to supply BIM objects.

Why you need BIM objects

Are BIM objects something different from BIM? Yes and No. BIM objects are a part of BIM.

Think of them as the building blocks of a digital project. They are represented digitally and contain data that characterises it. This data could be all the geometric data and properties that allow the user to place it into various positions in the digital model, but also other types of information that help determine its longevity, behaviour, impact on the environment, recycling or even disposal.

In simple terms, a BIM object is your product's digital twin, containing all the relevant information for specifiers to see.

It's increasingly the case that BIM objects are no longer just a 'nice to have'. Manufacturers need them to expand their reach, find new routes to market, enhance product development through early testing, increase collaboration across teams... we could go on. *And we will*. But first, let's understand a bit more about what BIM is, and what it isn't.

What BIM is and isn't.

Let's sort out the confusion.

There are many ways to describe what BIM is. And that can create frustration and add complexity to an already complex topic. Sometimes, weeding out the "what it isn't" can bring greater clarity on what this process entails. So, here, we've simplified both:

BIM <u>IS</u>

Used globally, with technologies having been developed since the 1970s

A process that fits the user's requirements

A process that creates, manages and develops all project information.

A system that deals with project data, 3D design and info from before construction until after project completion

Used by small, medium and large companies

A collaboration between manufacturers, architects, designers, surveyors, engineers, contractors, specialists, builders...

Seen as a process that can result in major cost savings and boost $\ensuremath{\mathsf{ROI}}$

Simple to get started

BIM <u>ISN'T</u>

A new and untested platform

A one-size-fits-all workflow

A tool that uses 3D CAD or just helps with design

A single piece of software or application

Used only by large organisations.

Used only by architects

A cost to a project

Difficult to understand and use

What value does BIM bring?

Why BIM matters to specifiers, manufacturers and the rest of the world

Better and more reliable information

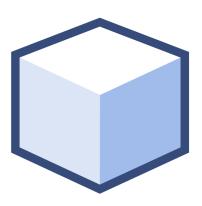
Accurate product and project data make it easier for architects, engineers, contractors and owners/ operators (AECOs) to provide the most efficient construction workflow for the project. From giving owners a holistic view of their project in a dynamic 3D visual format, to addressing technical business challenges and importantly extracting actionable value from it, data in BIM is powerful.

Stronger Communication

Given that all information and ideas can be housed in a secure, shared cloud-based location, AECOs can access the data from anywhere. This results in better and faster collaboration, communication and understanding between all parties involved. Ideas can be tested and shared in the model rather than on-site, resulting in less errors, lower costs and happier clients.

Enhanced efficiency

Supply chain issues, design errors, a reliance on paper or outdated processes, communication problems and on-site testing failures are just some of the problems that slow projects down. Digital construction management with BIM simply speeds things up, propelling improvements in project management. With enhanced design options for manufacturers and multiple assembly opportunities, efficiency soars and the speed of delivery accelerates.



Carbon saving

BIM objects often offer data on the amount of carbon associated with the product. This helps AECOs identify sources of carbon savings and make the best choices from both an environmental and economic standpoint. How the product is used, its lifecycle and recycling potential could also be understood by running simulations and testing lifecycle concepts, both before and during a build, but also in the demolition phase.

Health & Safety

A virtual construction process also helps with site layout and access, as well as effectively plan for safety equipment provision. It can identify potential hazards, develop evacuation routes and by using sequencing methods, solve complexities that would normally only be realised when on the build site. BIM provides a more efficient and effective way to develop best practice and mitigate risk by enhancing safety on site.

Sustainability and BIM

How building information modelling can clean up our act

How big is our carbon footprint?

As presented on the previous page, BIM can work wonders in terms of mitigating our carbon footprint. But why is this important for us? Buildings and construction account for 39% of energy and process-related CO2 emissions (World Green Building Council).

Architects, engineers, contractors, owners, manufacturers, international organisations, states and governments are under immense pressure to get it down. It's time for radical collaboration between public and private actors across the entire value chain and for mitigation, adaptation and health agendas. But what does BIM have to do with it? BIM plays a major part in making the construction industry more sustainable.

Data empowers sustainable decisions

The product and project data in BIM means users have a stronger understanding of where things come from, how they're made, their environmental properties, its life cycle and recycling ability.

BIM enables users to capture and understand data that can be used for sustainability assessment. Achieving certain BREEAM or LEED criteria is therefore easier, given the significant building performance analysis capabilities with BIM.

A working culture built on sustainability

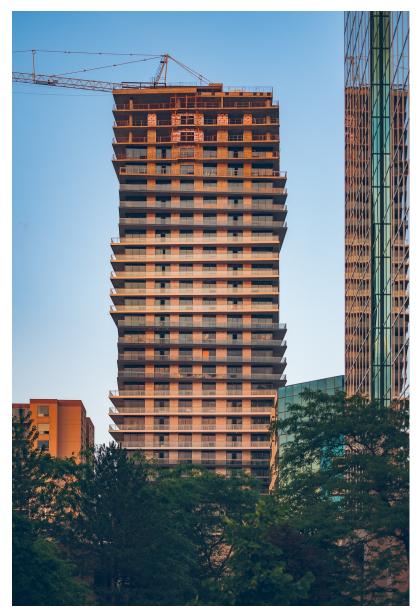
Changing the culture of an industry or even company takes time. But because BIM can reduce wastage inherent in the building industry, change attitudes of reuse and develop new ways of sorting demolition waste, for example, it creates a pathway to building a more successful sustainable culture within the industry.

Collaboration mitigates errors

As teams work together in BIM, everyone knows the dimensions, quantities and design. They collaborate to solve problems and provide solutions. Such connections from early in the process mean mistakes are less likely to occur on site. Less mistakes lead to less waste, lower emissions and a more environmentally friendly build.

Involvement creates climate ownership

And given that everyone in the BIM process is in the loop, interlinked and aware of what's happening and when, it impacts the entire supply chain. All persons involved in the project are connected. They're not just part of it, they're in it. They feel that they're playing a significant role in something bigger. Something that will play its part long after the project has ended. And with this, the desire to do things better and faster mean procurements accelerate, generating major efficiencies.



Want to go deep into the green? Get your copy of Why sustainability is key to getting specified

BIM industry personas

Getting to know the people involved in projects

Reaching the professionals

Want to reach specifiers? Of course, you do. But that's easier said than done. As a marketer in manufacturing, you're probably asking yourself:

- Who should I target?
- When should I target them?
- How do I target them?
- Where do I target them?
- What messages should I convey?
- How do I ensure that it reaches the right people?

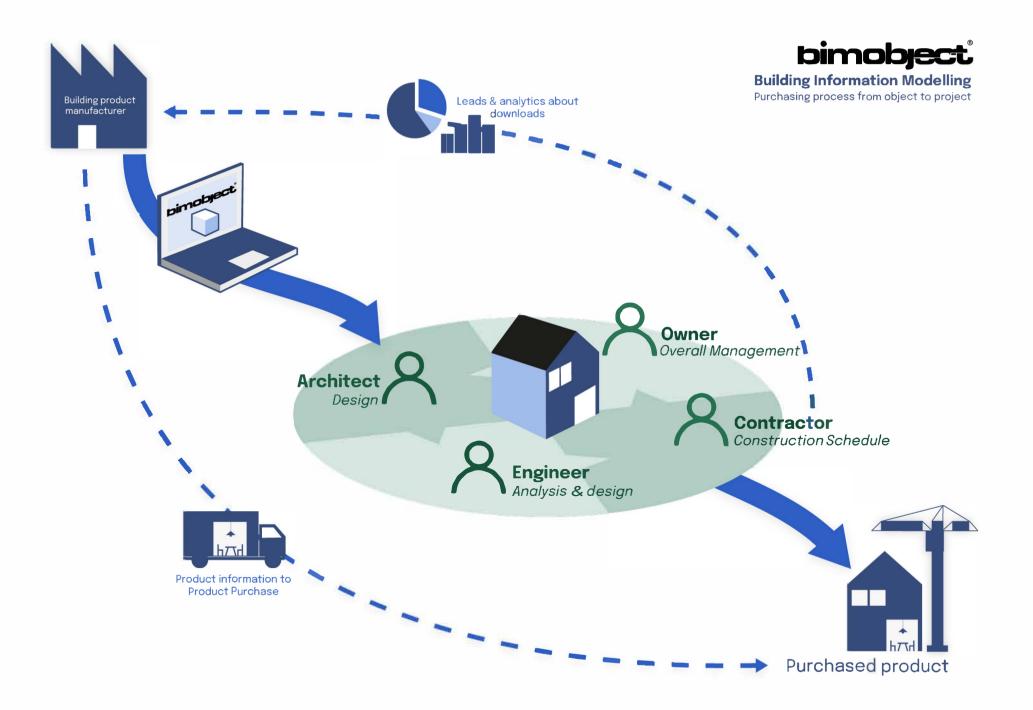
Look, you've probably realised by now that marketing is changing. So are your target audiences. We're moving away from brochures and trade shows. So, what's left? Many building product manufacturers still rely on traditional marketing channels. They take a lot of time, cost a lot of cash and usually target the wrong specifiers at the wrong time. Specifiers who are not actively looking for products, or who don't need your specific product, simply aren't going to be interested in it. So going down this route is not a good idea especially if the results can't be measured.

BIM is built on collaboration

If you want to get your products into a design project, who should you target? A huge venture like a construction project needs a team-oriented approach. The client, the architect, and the contractor are all members of the same team.

In this section, we provide you with information about the different specifiers and influencers. Albeit, this may vary but it's a starting point to understand the collaboration process and the importance of knowing your audience. So let's dive into the most common stakeholders involved in a BIM project:

- The client
- The architect
- The interior designer
- The engineer
- The contractor
- The facility manager / owner



The client.

BIM industry personas

Who they are

The client is the person or firm for whom the project is carried out. Given that there are often so many players in large construction and building projects who operate at different levels and manage parts of the project at various times, it occasionally may be unclear who the client is. But to keep it basic, the client is the one who initiates and pays for the work/project.

Role in BIM

The client usually appoints the designer and contractor. In some cases, the client also defines the aesthetic and functional needs of the final outcome. By using BIM, the client can see the execution plan, get information about the concepts and gain model, cost and as-built information. The client needs a visualisation of the project in order to approve it and create promotion marketing material. Information before, during and after the project is a must.



The architect.

BIM industry personas

Who they are

Architects are professionals who design buildings. There are different types of architects with different needs. For instance, there are landscape, technical, residential, and industrial architects. Apart from designing buildings, a big slice of the architect's job is research. They are usually hired by the client to refine the vision and turn it into a plan.

Their role in BIM

The architects get the brief from the client and start their work and research. BIM enables architects to gain greater project insights early on and with BIM objects, have access to all embedded properties, including costs, carbon footprint, and manufacturing information. With the BIM model (digital twin) the architect can design quicker, run tests and show the client a much more detailed 3D overview of the final results. Make sure you provide:



Aesthetics and/vs Functionality information



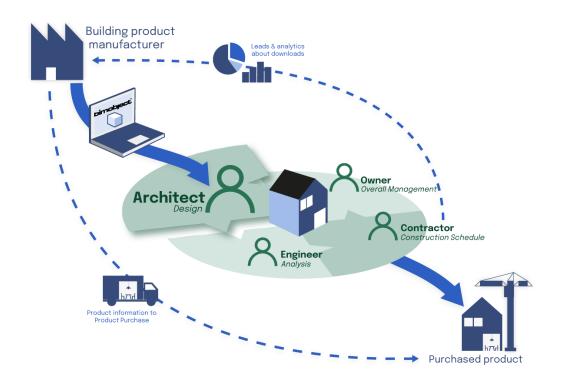
Reliability & Value



Building regulations & legislation, sustainability data



Availability



Want to synergise with architects?
Find out how to in our interview with Giuseppe Tortato >

The interior designer.

BIM industry personas

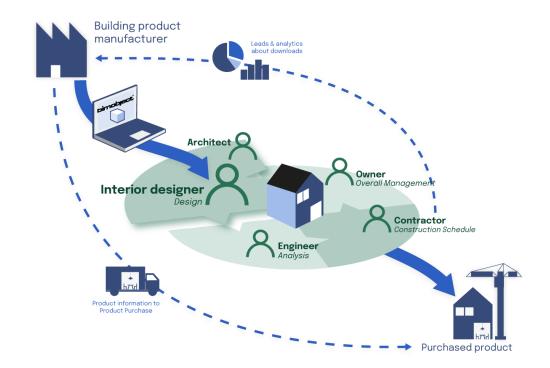
Who they are

The interior designer focuses on the interior space and collaborates with project stakeholders to complete the internal function and look. Examples: kitchen, bathrooms and selecting material and finish.

Role in BIM

BIM gives the interior designer the opportunity to be involved in the project right from the initial sketches. The designer can visualise spaces and modify the design from the start. This means better project coordination.

Psst! A manufacturer with an interior product programme needs to demonstrate how the product performs, enhances productivity and increases the occupier experience. The decorative products should also provide adequate colour charts and samples to allow matching between materials.



The engineer.

BIM industry personas

Who they are

The engineer provides expertise in design, installation and maintenance. They evaluate the structural, electrical and mechanical condition of a project, as well as carefully inspect the design before implementing it. These tasks would also incorporate reviewing energy-efficiency systems, such as lighting, water and air conditioning.

Role in BIM

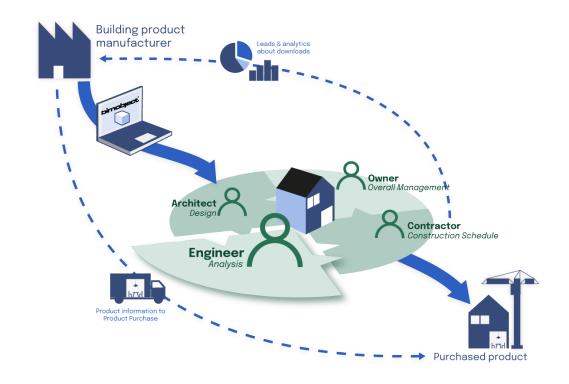
With BIM the engineer gets a single source of data, and an easier way to manage information, figures and dimensions. With the BIM Model, the engineer can more easily detect clashes (errors), fully understand the impact and conduct better energy modelling and analysis. They can also run tests to ensure that the design is safe, serviceable and performs well before the building is even built. The engineer could also be on-site, instructing the contractors. Make sure that you provide:



Correct installation and use

Futureproof designs

✓ Sustainability



"The use of BIM software within the construction process of complex buildings and imposing dimensions has now become indispensable. In particular, the coordination and management of information can lead to a significant reduction in construction time and efficient coordination of workers on the construction site."



Matteo Santi,BIM coordinator and MEP coordinator at Gianni Benvenuto S.p.A.

Want more?

Get up close and BIM personal with Matteo in this interview.

The contractor.

BIM industry personas

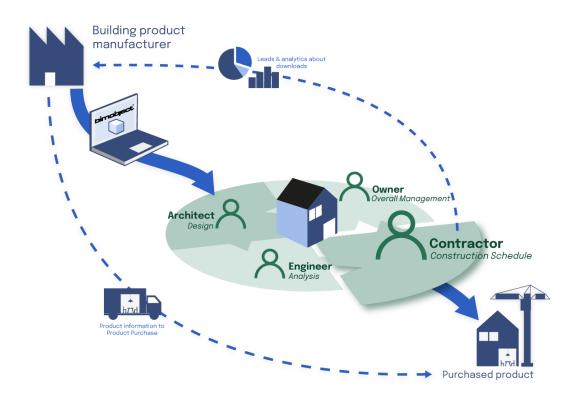
Who they are

The contractor builds. Having received the design from the architect and engineer, they start putting the puzzle pieces together and turn the vision into a reality. The contractor is mostly focused on schedule, planning and costs. Contractors need to know that the building will work, and not be delayed due to a lack of product availability or escalating costs. For it all to work, the contractor needs detailed technical drawings and model information.

Role in BIM

By working with BIM, the contractor can coordinate with the designers during the pre-construction phase. Knowledge and experiences can be shared, and suppliers can be scheduled for on-site deliveries and quantities. The planning can be very detailed and include movements of vehicles and planned machinery.

BIM increases precision and should result in less waste and higher accuracy. As it offers a visual representation it also helps manage the risks.



The owner/facility manager.

BIM industry personas

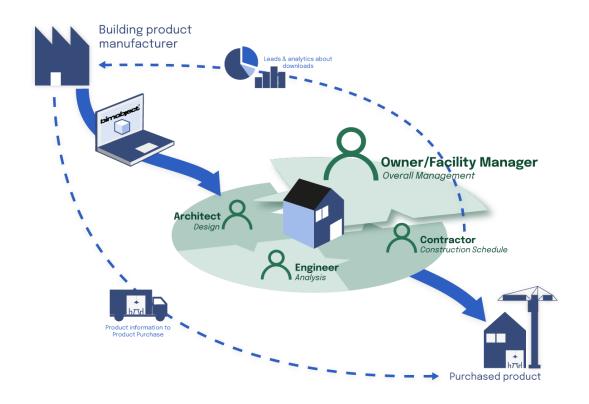
Who they are

Facility managers are responsible for the maintenance and upkeep of a building, including everything from legal requirements to health and safety standards. They can have both a strategic and operational function. These roles manage and care for the building and utilities for years or even decades after the designer and contractors are done with the project.

Role in BIM

BIM gives the owner/facility manager more accurate drawings, with a wide range of additional maintenance knowledge. With also in-depth information on renovation, this allows for a more accurate estimation of operational costs. Such valuable information from the BIM model establishes a smarter, easier way to manage buildings.

Sometimes the facility manager is involved at the start. This is to make sure that operational considerations are included in the design.



What about the manufacturer?

BIM industry personas

Now, you're probably thinking "But what about me?". Don't worry, we've not forgotten about you.

We know that BIM collaboration helps to generate savings, reduce waste, get specified and develop more efficient buildings.

But it also provides YOU with a LOT of juicy target group data about the specifiers. And, as a manufacturer, to get your product specified, you need to collaborate with EVERYONE in the building process that has influence – they're ALL part of the specification process. That means interacting with influencers as early as possible and then throughout the entire project. With the ability to generate valuable interactive 3D visual content and product data, BIM provides the opportunity for manufacturers to not just be suppliers to AECOs, but to also market to and ultimately partner with them.

Building information modelling is on a serious growth spurt. Allied Marketing Research states that the BIM market size was valued at €4.5 billion in 2019 and is projected to reach€13.7 billion by 2027, registering a compound annual growth rate (CAGR) of 15.2% from 2020 to 2027.

The source also adds that these estimations were made pre-COVID and the number for 2027 is likely to be higher than previously anticipated.

BIM is here to stay and play a crucial part in the specification marketing process.

And so, if you don't want to be left behind, adding BIM to your marketing toolbox will become a necessity. Indeed, many product manufacturers have already started to shift in this direction by virtually building and testing before creating in the real world. In their research and development, it's normal to use digital simulation tools e.g daylight simulations etc. to optimise their product.

It's also common to use 3D visualisers, BIM for product configurators, photo-substitution and creative work, Google Earth presentations and more.



"As manufacturers who supply products for building projects, it's evident that we must work proactively to meet the new standard in our industry. By offering architects high-quality BIM objects, we increase the probability that our products are installed in building projects."



Elena Broncano

Architect and International Specifications Manager at Bandalux

Read the full interview >

The benefits are within reach.

Are you?

The value BIM provides across the business spectrum goes far beyond risk reduction, convenience and cost. The ability to increase service offerings, develop relationships that retain clients for repeatable work as well as generate profit growth is evident.

The rate of BIM uptake in the construction and industrial sectors has accelerated over recent years. Statistica states that UK construction professionals using the tool have risen from 13% in 2011 to 73% in 2020. In Japan, 54% of professionals have used it.

Indeed, with BIM being progressively covered by <u>nationwide government mandates</u>, notably including the UK, Mexico, Spain, Russia and Norway, manufacturers offering BIM content gain a huge competitive edge.

We stated at the start of this e-book that manufacturers need BIM objects and that BIM will be the future of the construction industry. These were bold statements, but hopefully, now you understand why we said them, and stand by them.

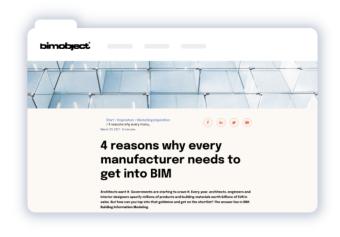
On bimobject.com, the global marketplace for BIM objects, you can reach over 2 million registered users including architects, engineers, interior designers and construction professionals. All browsing for the perfect product for the next grand design. But remember: a downloaded object is not the end of the journey – it's just the start. The fact that the same object can be placed in various buildings and projects is BIM's version of compound interest.

It's the never-ending loop and collaboration that will change our industry.

Hungry for more?

Quench your thirst for knowledge with these three free resources:







Why sustainability is key to getting specified

Read e-book or watch webinar >

Should manufacturers get into BIM?

Get four reasons why today >

Is BIM mandatory in your market?

Get answers in our global guide >

Visit business.bimobject.com

to attend webinars, access inspirational content and join the discussion

BIMobject.com

We can't go on building like we do today. Construction, the world's largest industry, is also among the world's largest sources of pollution, with buildings and new construction generating nearly 40% of the world's energy-related CO2 emissions.

BlMobject is on a mission to digitalise construction for a more sustainable future. We're a global marketplace for the construction industry, providing architects and engineers with the information and inspiration they need to design buildings faster, smarter and greener.

Our customers are building product manufacturers, such as Roca, Knauf Armstrong, Electrolux and Kline. They use our platform to reach, influence and understand building designers worldwide. With 2,000 building product brands and all the world's top 100 architect firms as users, we power digital building design worldwide.

BIMobject was founded in 2011, and is headquartered in Malmo, Sweden. We're listed on the NASDAQ First North Growth Market (ticker BIM) and our largest owners include EQT Ventures, and our founders.



