

# ECOINDEX: CERTIFICATION GROWTH IN B2B BUILDING PRODUCTS



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### **INTRODUCTION**

The purpose of this paper is to educate the commercial building product ecosystem about the interplay of supply and demand in the industry today. We plan to update this market landscape periodically and welcome feedback from you, the reader. We will be transparent about our methodology for modeling these market forces. Like any model, ours is imperfect but we feel that we have a responsibility to the market to share this data. We also understand the criticality of measurement to the progression of the green building movement.

Over our existence here at Ecomedes (2016) we have observed growth in the needs of CRE owners with respect to the sustainability and transparency of building materials (demand). This has driven the observable growth in the supply of sustainable building materials, rising to meet the demand.

One of our central hypotheses is that growth on one side of this market has network effects on the other side. Furthermore, we believe that by unlocking transparency to the relative volume of sustainable products and the demand for them, we can help accelerate these network effects. Our goal is to help enable the engine of capitalism to reward sustainability thus creating a virtuous cycle where sustainable demand drives more sustainable supply which in turn unlocks more demand, repeat.

Ecomedes' long-term position as the largest and most popular data catalog of impact-aware building products gives us a unique perspective to model this growth. On the supply side, we have aggregated, cleansed, organized, and refreshed the most eco-labels and product certifications in the market. On the demand side, we serve some of the largest CRE owners in the country and most of the largest A&D firms. So we have a unique perspective on both sides of the market.

Using this unique data set, we have made some assumptions and charted an ecoIndex to represent supply and demand.

We welcome your feedback and collaboration on this topic. There are a myriad of stakeholders involved in the building material process. Each one of them has a role to play in the advancement of more sustainable buildings. They all have different goals, constraints, processes, challenges, and best practices. So, each stakeholder can provide valuable input to this maturity model. We plan to update this annually and appreciate all comments!

### SUMMARY FINDINGS

Since the start of our measurement period in 2019, the supply for building products has grown steadily, with demand at a roughly similar rate. However, demand has recently spiked up while the supply growth remained constant.

We believe that this represents the culmination of several factors that are driving CRE owners and AEC project teams to ask for more data and transparency on the products that they buy.

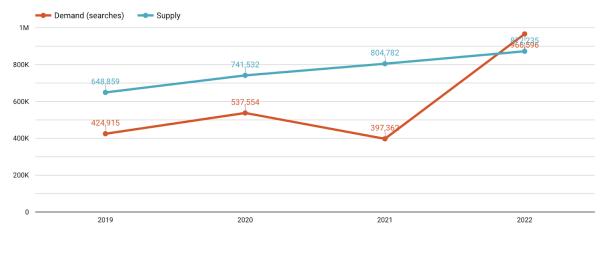


Exhibit 1 - Simple supply and demand model

The factors driving the beginning of a hockey stick of growth include the following:

 Regulatory Pressures: Stringent environmental regulations and building codes are pushing businesses to adopt sustainable building practices. Compliance with green building standards, such as LEED (Leadership in Energy and Environmental Design) are required in some geographies and often requires the use of sustainable materials to meet specific criteria for energy efficiency, waste reduction, and indoor air quality. Other regulations span cities (i.e. New York City Local Laws) publicly traded company requirements (SEC Scope 3 carbon transparency), regions (EU has established directives to improve energy efficiency and reduce carbon emissions in building, such as the Energy Performance of Buildings Directive (EPBD), set standards for energy consumption, insulation, and renewable energy integration).

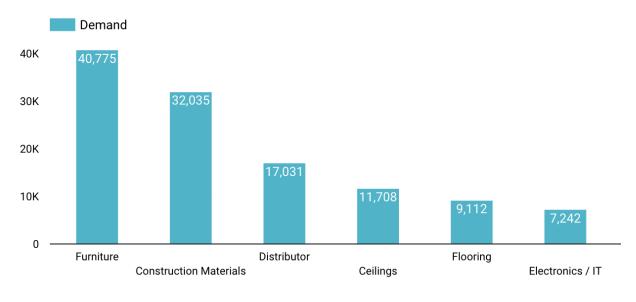
- 2. **Cost Savings:** Sustainable materials, while sometimes having higher upfront costs, often offer long-term financial benefits. Energy-efficient materials and technologies can lead to reduced utility bills and operational costs over the building's lifespan. Additionally, using recycled or locally sourced materials can mitigate supply chain volatility and associated cost fluctuations.
- 3. **Tenant Preferences:** Many tenants are prioritizing sustainability when choosing office spaces or retail locations. Commercial real estate owners recognize that offering environmentally friendly buildings can attract and retain tenants, potentially leading to higher occupancy rates and rental rates.
- 4. **Corporate Social Responsibility (CSR):** Businesses are increasingly focusing on CSR and sustainability as part of their brand image. Commercial real estate owners understand that incorporating sustainable materials aligns with corporate values and can enhance their reputation in the eyes of stakeholders and the community.
- 5. **Investor Demand:** Investors are showing greater interest in environmentally conscious projects. Real estate investment trusts (REITs) and institutional investors often see sustainable buildings as more resilient assets, which can attract more capital and potentially yield higher returns.
- 6. **Future-Proofing:** Sustainable materials are often more durable and resilient, providing better protection against wear and tear, weather events, and other environmental challenges. This long-term resilience can extend the lifespan of a building and reduce maintenance and repair costs.
- 7. **Risk Mitigation:** As environmental concerns grow, there is a recognition that using unsustainable materials could result in legal liabilities, negative public perception, and potential financial losses. By opting for sustainable materials, real estate owners can mitigate these risks.
- 8. Innovation and Technology: Advances in technology have led to the development of new and improved sustainable materials that offer innovative solutions for energy efficiency, waste reduction, and occupant comfort. Staying at the forefront of these innovations can give commercial real estate projects a competitive edge.

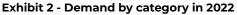
## ANALYSIS

The first question we had when diving into the data is, "what is driving the growth?"

#### **3A. Category Analysis**

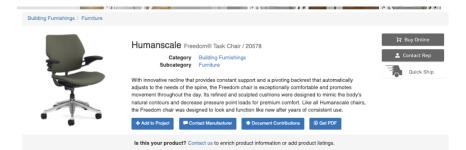
You can see in Exhibit II the demand (of searches and PDF downloads) for the top six categories. In this exhibit, demand is defined as is defined as the combination of product searches and product PDF downloads.





Why furnishing? Furnishing is one of the most highly evaluated and certified categories so there is a lot of transparency data that can be collected. It also has a high degree of product-human interaction in terms of physical contact. It also has a disproportionate share of attention in the design of a room.

Here is an example of a highly certified chair, and all of the 3rd party organizations who participate in the transparency of it, by Humanscale:



#### Rertifications and Standards

AFRDI Green Tick Certificate	B - <u>Gold (14596/5)</u> Certified by Furntech valid until 2023-04-02
BIFMA LEVEL® Certificate Number and Link to Document	LEVEL 3 (SCS-SCF-05108) Certified by SCS Global Services valid 2022-05-01 to 2024-10-31
BIFMA LEVEL® Disclosure: Product Grouping Methodology	Worst Case Sample Selection
CA Section 01350	Yes
CDPH Standard Method V1.2-2017	Yes
Conforms with LBC Red List Free Requirements	Yes
Health Product Declaration (HPD)	21145 (version 2.2) valid 2020-07-28 to 2023-07-28 21145
Life Cycle Assessment	Yes
Life Cycle Assessment URL	External Link go C
Life Cycle Assessment Verified by 3rd Party	Yes
Living Building Challenge Declare®	LBC Red List Free (HSC-0048, version 2) Certified by WAP Sustainability Consulting 3rd Party Verified valid until 2024-01-01
Living Product Challenge	Living Product Challenge Certified by International Living Future Institute valid until 2024-06-15
SCS Indoor Advantage Gold	Furniture (SCS-IAQ-05426) Certified by SCS Global Services valid 2019-03-11 to 2023-10-31
Textile conformance to certifications and standards	External Link 90 C
Ergonomic Strategy	Yes
Healthy Habits Documentation	Yes
Recycled Content  The recycled corterid data from the manufacturing plant closest to the zip code setting is displayed first and used for calculating credit corributions. Changing the zip code setting at the top of the page will re-available which manufacturing plant is closest.	
Recvclable	98%
Recycled Content - Post Consumer (%)	24.0%
Recycled Content - Pre Consumer (%)	14.0%
🛞 Materials	
Bio-Based Materials	0%
Material Ingredient Disclosure	Yes
Material Ingredient Disclosure URL	External Link go C
BIFMA Compliant	
ANSI/BIFMA X5.1 General-Purpose Office Chairs	Compliant

#### Exhibit 3 - Highly transparent furniture example

The second most sought after category was Construction materials. This includes large mass categories such as flooring, ceilings, and drywall. These categories tend to get a lot of attention from green buyers due to the large surface area and their history of using chemicals. There are many examples of flooring and drywall that rival furniture in terms of transparency such as these two examples from Saint Gobain and Interface Flooring.

	CertainTeed 5/8" SilentFX Noise-Reducing Type Category Gypsum Type Fire-Rated, Mold Resistant, Nois SilentFX Noise-Reducing Type X Gypsum Board is an interior significant reduction of sound transmission between rooms. Tr ratings of 50 and higher and is abuse resistant and features M	s-Reducing acoustical gypsum board designed for is product achieves system STC Zhoch for moisture and mold
	resistance. 5/8" SilentFX Type X is fire-rated and designed for is available in standard lengths of 8', 10' and 12'. Meets ASTM	use in fire-resistive Type X designs. It C1396. Learn more about this product.
	+ Add to Project Contact Manufacturer Document Cont	ributions Get PDF
Certifications and Sta	indards	
CA Section 01350		Yes
CDPH Standard Method V1.2-2017		Yes
CHPS Pre-Approved Product - Material H	ealth Disclosure	2021-004 (version v2.0)
an errerepered rouse material		valid 2021-06-29 to 2023-11-06
Environmental Product Declaration (EPD)		Product Specific EPD (4789532059.142.1) Certified by UL Environment valid until 2026-01-01
Health Product Declaration (HPD)		32222 (vernion 2.3) 3rd Party Verified valid 2023-04-07 to 2026-04-07 32222
UL GREENGUARD Certificate		UL 2818 - 2013 Standard for Chemical Ermissions for Building Materials, Finishes and Fumishings Certified by UL Environment valid until 12024-031
UL GREENGUARD GOLD Certificate		13902-420 UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furniships Certified by UL Environment valid until 2024-03-11
The recycled content data from the manufacturing pli contributions. Changing the zip code setting at the to Manufacturing Location	art closest to the zip code setting is displayed first and used for calculating credit p of the page will re-evaluate which manufacturing plant is closest.	Nashville, AF Pre-consume: 1.009
		Post-consumer: 3.00%
		View other manufacturing locations
Recyclable		100%
Rapidly Renewable Materials (%)		1.0%
S Planet Health		1.0%
Embodied Carbon (Cradle to Gate) - GWF	(kgCO2e)	941 kgCO2e / 1000 ft2
Embodied Carbon Documentation		External Link go C
Chemical Avoidance		
Materials Disclaimer - Material data is based on a sp details. Please confirm details regarding your specific	ecific product configuration, changes in configuration may affect material data c product configuration.	
Cadmium Free		Yes
Chlorine Free		Yes
.ead Free		Yes
Mercury Free		Yes
Natural Rubber Free		Yes
PBDE Free		Yes
PFOA Free		Yes
PTFE Free		Yes
Phthalate Free		Yes
Urea-Formaldehyde Free		Yes

#### Exhibit 4 - Highly transparent construction materials example

#### **3B. A&D Analysis**

The second question we asked was, who are the architects and designers driving the growth in demand. Exhibit 5 contains the top 10 A&D firms driving demand for sustainable materials. In this exhibit, demand is defined as the combination of product searches and product PDF downloads.

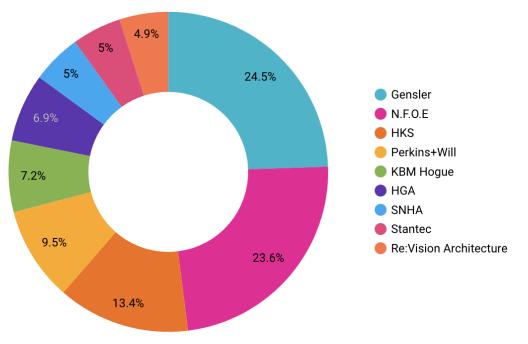


Exhibit 5 - Demand by top A&D firm in 2022



## **METHODOLOGY & DATA DICTIONARY**

The first question we had when diving into the data is, "what is driving the growth?"

The following definitions were used for calculations:

**Supply** - The number of products that have received any of the 100+ 3rd party certifications, ecolabels, and transparency documents in the ecomedes network <u>(see list here</u>). The list of certifications is a vetted list that has been evaluated by the sustainability experts at ecomedes for both credible science and reliable data availability.

**Demand** - There are Multiple ways to measure demand.

- Exhibit I: Demand = Network wide searches for sustainable products
- Exhibit II: Demand = Searches + PDF downloads

Limitations - There are several limitations to our analysis including

- 1. We are limited by the ecolabels and products that we aggregate (see list here)
- 2. We are biased by the ecolabels who are our clients where we host their registries (i.e. Bifma)
- 3. We are biased by our largest CRE owner, the Federal Government
- 4. Our data sample includes both commercial and residential but is biased towards commercial building due to out client base
- 5. Product counts vary by brand, based on how they submit their sustainable product data. Some share at a product family level, others at a product variant level (color, sku). So categories where brands tend to fan out their SKUs will have higher counts (Interface does this in flooring).

## **ABOUT ECOMEDES**

Ecomedes is an enterprise-grade cloud software platform dedicated to simplifying sustainable decision-making for responsible resource management. It provides manufacturers, CRE owners, and construction project teams with tools and information to make informed choices regarding sustainable product selection and procurement to help reduce both building costs and climate impact. The platform offers the most comprehensive database of certifications across the widest range of products, and the Mortarr.com visual designer collaboration suite. Users can search on specific sustainability criteria such as energy efficiency, recycled content, or environmental certifications or can search by design inspiration. Headquartered in San Francisco, California, you can learn more at our website <u>www.ecomedes.com</u>.