

**Better Design and Material Decisions for Developers
and Residential Production Builders**

**Technology
Software Solutions**

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**Ziv Rozenblum
CEO**

BIO:

Ziv Rozenblum is the CEO, President and Founder of Ekotrope - a software based startup for the residential construction market. Ekotrope utilizes an MIT- based technology to significantly reduce builder's construction and operational costs without compromising the building's look and feel. Prior to Ekotrope, Ziv managed the strategic real estate product line at Archibus – a provider of software solutions for real estate and facilities management with total annual expenditures exceeding \$1.5B. Prior to Archibus, Ziv led a system architecture group responsible for developing a large industrial printer at Hewlett-Packard. Prior to Hewlett-Packard, Ziv initiated

and managed several IT projects at the Israeli Air Force, aimed at aggregating large amounts of personalized information into one smart dashboard. Ziv holds a M.S. in Engineering and Management from MIT, a M.S. in Biomedical Engineering from Tel Aviv University, a B.S., Cum Laude in Mechanical Engineering from the Technion – The Israeli Institute of Technology, and a B.A., Cum Laude, in Computer Science from Bar-Ilan University.

About Ekotrope:

Ekotrope has developed a software-as-a-service solution that helps developers and residential production builders in making better design and material decisions allowing them to increase profit significantly while decreasing the total cost of ownership for the homeowner.

By comparing thousands of design options based on cost and value, Ekotrope's clients build energy efficient buildings for less money than "regular" buildings. A typical builder using Ekotrope will reduce construction costs by up to 10% and, at the same time, reduce the home's energy consumption by up to 40%. To date, Ekotrope has over thirty clients and projects in eleven U.S. states.

**Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine**

CEOCFO: Mr. Rozenblum, what is the concept behind Ekotrope?

Mr. Rozenblum: We address a key issue with environmental solutions – the need to pay a premium upfront. For example, a hybrid car costs more money than a regular car, recycling

takes more time etc. We believe that this creates an impediment to adoption even if for the long run these solutions provide a good ROI. To address this, our software helps construction professionals design, renovate and build buildings that are energy efficient and, at the same time, cost less to build. This means that our clients, typically developers and production builders, realize that they can significantly increase their profit by adopting green practices. By creating this connection between environmental solutions and financial incentives, we make a win-win situation for all stakeholders – the construction professional, the owner, the environment and Ekotrope's bottom line.

CEOCFO: How does your software do this?

Mr. Rozenblum: Most practices today address energy efficiency as a component-by-component upgrade. For example using a triple pane window instead of a double pane one to reduce heat loss. Doing so will get the desired results, but will cost a premium and might not be the optimal solution. For example, it might be that most of the heat is actually lost through the wall. The Ekotrope solution takes a step back and looks at the entire house as a complete system. The software lets users compare different design choices for materials, shape, size, orientation etc. and finds the best design to achieve the desired performance in the most cost-effective way. This is where the savings occurs. Ekotrope identifies opportunities where the right combination of cost-effective components and design choices will yield superior energy performance. For example, a super-efficient furnace might allow usage of

less insulation with the net effect of overall cost reduction and increased energy efficiency at the same time. A typical client of ours, a production builder or residential developer, cuts construction costs by up to 10% and at the same time increases energy performance of the buildings by up to 40%. CEOs and CFOs familiar with Ekotrope have not only appreciated the fact that we can help to improve their bottom line by reducing construction costs but our tool also allows production builders and developers to turn over their inventory at a higher rate. The recommendations that Ekotrope provides can be shared with prospective homeowners helping them to make a more informed and quicker decision.

CEO CFO: When you are approaching potential customers, when do they understand and believe that Ekotrope really can perform as promised?

Mr. Rozenblum: That is a very good question, because many clients' first reaction is that they do not believe that we can do what we claim we do.

Part of the reason is that we have introduced to the market something that does not exist. We address that through a pilot, where we show our results on a client design with the client's own costs. This makes it very real. Most our clients care about profit and time on market and we can significantly affect both and the pilot shows that.

CEO CFO: It should be a no-brainer. Could you give us a specific example?

Mr. Rozenblum: For example, a New Hampshire client of ours, building a fifty home development, was able to increase profit by 20% and, at the same time, make houses 35% more energy efficient simply by altering some design choices of energy related components. Another example is a client that is building a new net zero development. This means that, on average, under normal usage patterns, these houses will have net zero energy consumption or even produce more energy than consumed. Typically, these houses have a very long payback to owners (relative to a "normal" house) that can be as high

as fifteen or twenty years. By helping this developer make the best design choices, we drove payback down to one to three years (based on mortgage terms) with a lifetime saving of over \$70,000. Another nice story is about a client who discovered that by eliminating one window in their design, they could save enough energy to change the wall system from 2X6 to 2X4 and still meet the local building code. This is a huge cost reduction (in this specific case, reducing ~5% of construction costs).

CEO CFO: What was the biggest hurdle in putting the technology together?

Mr. Rozenblum: Challenges existed in many different dimensions. There are technical challenges, business challenges and start-up challenges. For example, making the product intuitive and easy to use by our clients was a challenge since; after all, this is a very sophisticated system and we need to drive this complexity out of

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the daily usage. Another challenge was the speed of the application. We want to support on-the-fly decisions, which mean that we need to produce meaningful results within an acceptable timeframe. We virtually build thousands of houses and analyze them against local weather data and we do that in seconds. This was not an easy task. Building trust in our results is another challenge that we take very seriously. Towards this end, we recently got our software accredited by one of the leading organizations in our industry – RESNET. In fact, we are one of only four solutions accredited to provide a HERS (Home Energy Rating System) score, which is the most common energy consumption index in the US. This adoption indicates the maturity and accuracy of our analysis. In addition, we constantly measure our results against other leading products to make sure that we provide the best analysis.

CEO CFO: How do you reach potential customers?

Mr. Rozenblum: We use outbound marketing practices to reach target clients, mainly developers and production builders. Towards this end, we are using different methods for lead generation and establishing industry partnerships. We also invest resources in a mix of inbound marketing practices.

CEO CFO: How accurate does the information that you are inputting need to be to come up with an accurate result?

Mr. Rozenblum: The level of accuracy depends on the use case. Clients are using Ekotrope to make better design choices during the design and construction phases. They also use Ekotrope for marketing and sales as a way to attract prospects, personalize the sales experience and show that clients are getting the best deal for their money. Each of these use case

requires a different level of detail and accuracy, and occurs at different stages of the design and implementation process. In order to address all these use cases, we developed a smart algorithm, which allows users to continually analyze and make decisions at every phase at the

desired level of accuracy even when only partial information is provided.

CEO CFO: You are in the US today; do you see a larger geographic footprint?

Mr. Rozenblum: There is definitely a need outside of the U.S. Growing markets as well as places where utility costs are high and/or have tough environmental codes will see a significant and immediate benefits of using a solution like ours.

CEO CFO: Development and commercialization is costly; are you funded to make the push that you would like to reach perspective customers or will you be seeking funding?

Mr. Rozenblum: We just closed our A round, so we currently have enough funds to take us to the next step. However, we will probably be seeking a B round at some point in the future.

CEO CFO: Why should business and investment community take notice of Ekotrope? What makes you special?

Mr. Rozenblum: Construction is among the biggest market sector in the US economy. We have found a way to change something very fundamental in that industry that has tangible profitability benefits for build-

ers. We have found a new way for people to increase profit and be more energy efficient at the same time. This is a game changer that is going to be applicable everywhere and thus the market opportunity is staggering. In addition, we are addressing this industry when it is on the rise again. This makes us the right tool at the right time. On a personal note – for me it is not just about the financial

success of Ekotrope. I believe that we are among very few solutions that actually bring financially driven decision-makers to the environmental support table. Thus, we are transforming an entire industry to become greener. This is exciting!



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