DESTINATION STARTUP

Tynt Technologies

One-Sentence Summary of What You Do: Tynt Technologies has developed dynamic windows based on reversible metal disposition technology to control light and heat flow with 100% blackout/ privacy.

Affiliated Institution: University of Colorado Boulder

Have you formed a company yet? Yes

Funding/Financing: Grant Funding, Direct/Indirect University Support, Angel Funding (including Self or Friends/Family), Venture Capital

Please describe your company and the problem you are trying to solve: Climate change is the defining problem of our generation, and possibly of our species. While many innovations target transportation, industrial manufacturing, and even agriculture, we find that buildings, which account for over 40% of all CO2 emission worldwide are greatly undeserved. Within this sector, 30% of that energy is wasted because of inefficient window design. Dynamic windows that tint on demand provide a promising approach to make a great impact on total energy usage. In fact, the US Department of Energy calculated that if all windows in the US were dynamic, we would reduce our TOTAL energy consumption by 4% each year, resulting in $44 Billion in energy savings.

Although dynamic windows have been in development for 3 decades, previous approaches have failed to combine the key characteristics necessary for broad adoption, and thus broad environmental impact. Every major dynamic window company in production now uses metal oxides, which are costly to produce, have yellow or blue color depending on the state of tint, and are incapable of providing privacy--a key product feature for homeowners.

Tynt was launched by a team from CU Boulder who developed a new approach, using reversible electroplating of metal, which shows high potential for solving these challenges. Our devices are completely color neutral as well as completely opaque (allowing less than 0.0001% light transmission) in the dark state. The technology has been demonstrated on the 1ft scale, and there are several patents in process protecting our approach

What is/was your go-to-market strategy? The total addressable market for this technology in the US and Europe is $5 Trillion. That market only includes residential windows, which is where we see the biggest opportunity. Between US and EU there are about 10 billion windows installed in homes today, and with an average selling price of $500 per window we see an enormous opportunity. Our serviceable market, which just accounts for the number of new windows sold today, is $65 Billion. Of course with our technology we anticipate greatly increasing the number of windows sold.

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A key differentiator in our go to market strategy, in addition to the focus on residential, is that we aim to sell windows to consumers. Generally speaking, dynamic “window’ companies will deliver a technology to a glazer (in the case of commercial applications) or to an IGU fabricator or window company (for residential). However, when you look at existing players in the market in those spaces, there is a frustrating lack of innovation and inability to meet consumer needs when it comes to smart windows and smart home products.

Our first product will be a skylight, jointly developed with the world’s largest skylight manufacturer. As we learn through this process, we will begin developing the capability to deliver vertical windows (what we all think about when we hear the word window) directly to consumers under our own brand. This strategy also allows us to take the lead on overall energy management in the home.

How will/do you generate revenue? Long term, the vast majority of our revenue will come from window sales. In the short term, we have a commercial agreement to sell IGU’s to our skylight development partner.

How will this showcase benefit your company or technology? Although we just closed our Seed round in August of 2021, the timing of the showcase is great to start getting introduced to potential Series A investors. We anticipate raising a $25 million A round between Q4 of 2022 and Q1 of 2023.

Who are the members of your team and why is this the right team to get the job done?

- CEO - Ameen Saafir - I was Chief Engineer of Kinestral/Halio, which was the first dynamic window company to commercialize a wet chemistry based technology. I worked there for 8 years, and scaled the technology up from test coupon size to 5’x10’ windows, commissioning and running our factory in Taiwan. Before Kinestral I worked for Samsung and DuPont on wet chemistry based OLEDs, playing a key role in developing the capability to produce large screen TVs.
- COO/CPO - John Dwyer - John was most recently VP of advanced products at Katerra. Before that, he spent 18 years at Flextronics where he started and ran the wearables and connected audio businesses. He has a wealth of experience in manufacturing operations and product development, and complements the CEO perfectly in this regard. Between the two of us, we are extremely confident in our ability to cost-effectively scale the technology.
- Chief Scientist - Prof. Mike McGehee - Mike is one of the top material science professors in the world and has had over a dozen companies launched as a direct result of his research. This is the first time he is participating as a cofounder,
- As mentioned earlier we have an agreement and have received investment from the world’s largest skylight company (happy to disclose by name during the pitch), which not only validates our technology in the market, but provides a clear path to market entry.