We're working on a new urbantech startup playbook for 2021. The first version was published in 2016 and we added case studies in 2018, but so much has happened over the last few years that it's time for an update. As before, we'll leave out our perspective on more general startup topics such as team, market and product—a lot has already been written and discussed on these topics and we can link to them. We'll focus on the areas that we've found to be unique challenges for startups working at the intersection of climate and cities.

More data points
The first version was published in 2016, as we were launching our second fund and had made about 20 investments and most companies were just a few years old. Today we've made almost a hundred investments, and we've moved beyond venture equity investing to include lending, too. And we've also been able to see the first cohort of portfolio companies reach significant scale, with hundreds of thousands of devices in the world of hundreds of city government customers. Some of these companies are well on track to unicorn status, and their public benefits can be measured in X and Y.

Beyond scale, we're also able to observe across more industries and geographies. Many of our portfolio companies also operate across the globe, in major markets like the EU, China, and Japan, with notable corporate customers and partners in areas like architecture, engineering, construction, water, waste, natural gas, and electricity.

Business models
Some of the most successful urbantech startups pursue quite different business models. There are consumer hardware sales, marketplaces, and SaaS software as well as on-demand. There are some hybrid models with hardware sales happening alongside consumable sales or SaaS.

Some of the most notable changes we've observed are business to government (B2G)revenue-sharing models and hardware leasing or XaaS. Both of these appear to be driven by a desire to speed adoption and share risks. For example, sharing in revenues for new local government services effectively means paying only for what works, assuming a transaction is the desired outcome.

XaaS addresses a broader range of risks. New types of hardware usually require that customers take on some early adopter risk—what if a new, better, or cheaper technology comes out? What happens if the startup fails? Or what happens if the new hardware doesn't meet the performance claims like range or energy savings? XaaS is the process of turning hardware into a service. In the automotive world it's simply called leasing, but it's a new option for early stage hardware startups.

Capital stacks
Startup fundraising strategies routinely cover a mix of equity, convertible notes, and simple agreements for future equity (SAFE). While there are some preferences among VCs, ultimately these lead to sales or equity in return for cash that is usually used to secure key hires who, in turn, will help to grow the business over the next 12–18 months.

About 50% of the Urban Us portfolio are hardware companies. These teams need to make key hires but also fund additional activity to ramp up manufacturing and then pay for inventory. And if you need

to build a first factory or plant, equity usually won't be enough unless you can live with substantial loss of ownership.

In some cases, teams turn to venture debt as a way to avoid dilution while accessing more cash to achieve a specific milestone. This can, in turn, lead to a higher equity valuation on a new financing round. Terms vary, but venture debt has grown at least 400%, according to Pitchbook Data. This doesn't include consumer facing "buy now, pay later" options like Klarna, Affirm, Afterpay, and Paypal.

Despite all these changes, the venture ecosystem doesn't even acknowledge non-VC options. For example, of 47 articles in the YC startup school and 80 posts from the Kauffman Foundation, only two articles touch on debt, and one of them is about convertible debt. The venture ecosystem simply isn't educating founders about rapidly emerging alternatives.

We're going to explore hardware options like equipment finance, inventory finance, revenue-based finance, e-commerce finance, and various off-balance-sheet or project-based structures. Beyond hardware companies, we're also seeing debt designed for companies with recurring revenues like SaaS or predictable revenues from e-commerce.

Fundraising
Pitchbook 2021 predictions show a wide range of trends, from non-traditionals participating in VC to growth in venture debt. But they also predict that the Bay Area will be below 20% of deals being counted for the first time. Is this because everyone is going to Miami and Austin? No. We've been investing beyond the top US hubs for some time, and their talent has always been distributed.

The really big challenge was how to access most of the best VCs, who were based in the Bay Area. And then you had to make your way to the Bay Area, often for long periods of time, to take in-person meetings. In a post pandemic world, all of this activity shifted online. If you are sitting in Tel Aviv, Miami or Lagos, sure it was nice to see the local investor ecosystem grow, but now you can more easily reach investors, wherever they are.

This introduces some new opportunities. For example, it's easier to discover investors via ranked lists like NFX Signal, Techcrunch or VC Guide, which now join angel.co and Crunchbase. And it also seems useful to look beyond the pitch deck. We're seeing more memos, sometimes from other investors, as investors look for more data points to help them get to know founders and businesses.

Policy and regulations
Uber shaped a lot of the narrative about private and public interactions with hundreds of lawsuits and visible fights in NYC. As Uber's "Fixer" has since described, they believed the stakes were high because NYC would set a precedent for elsewhere (or because this is where most of his political relationships were—it's hard to know). It seems this approach did some longer term damage.In the EU, local governments weren't going to be bullied in the same way, and it helped that the EU was already taking a strong position in US big tech. But we also have the sense that this approach damages relationships with professionals working with local government. Was this why it took a pandemic to unlock scooter share in NYC?

More importantly, we now have many more positive examples that build on what we know from the history of Tesla or SpaceX, where the government has played important supporting roles as a source

of policy support, as a customer, and as a financier. We're seeing all of these dynamics as local and national governments expand support for key climate initiatives like building or transportation electrification. And we're seeing founders benefit in multiple ways.

What did we miss?
What other topics should we discuss?
What companies should we cover in case studies?