

# Greening urban technology: A portrait of 2150

In the ever-growing investment landscape, funds are multiplying and diversifying, and for startups there is more to raising investment than the money and the media moment. With #QVCS Maddyness profiles different funds to give founders and entrepreneurs the information they need to choose the right investor. Today we hear from Christian Jølck of 2150.

---

It all began when a technologist, real estate investor, B2B operator and venture capitalist came together to tackle the major challenge of reimagining the urban environment.

We looked at the facts and challenges. As human beings, we spend 90% of our time in urban environments. 2B new homes will have to be built in the next 80 years. Humanity is building a New York every month. Our cities absorb two thirds of the world's energy and generate over 70% of global emissions. As temperatures rise and demand for air conditioning increases, energy consumption to keep us cool will triple.

*As things stand, technology is not at the core of how we build and operate our urban environments. Neither is the focus on living sustainably.*

We decided to start our venture capital fund, 2150, based on the premise that by investing and helping scale sustainable technology, we could create a more prosperous outlook for the year 2150. The name '2150' represents both our ambition and our legacy.

Our ambition is to back technologies that will help our cities become a benefit to our planet, rather than a burden. For example, to reach the Paris Agreement we need to find between 18-32 gigatons of CO2 savings according to research by UN. This fact led us to focus on finding what one of my fellow partners has labelled "Gigacorns"; commercially viable companies whose technology has the potential to mitigate or reduce one gigaton of CO2 equivalent per year at scale.

So far, we have raised two thirds of our €200M target fund size and we are backed by a number of institutional investors, unicorn tech entrepreneurs, family offices and strategic investors engaged in the urban environment. This will be a team effort and we are ramping up right now; since the beginning of this year, we have onboarded a number of amazing individuals to help us realise the mission. One of them is Nicole LeBlanc, who is leading our work with strategic investors and who before led the Google SideWalk Labs project in Toronto. Backed by Alphabet, this was one of the biggest and most forward-looking urban tech initiatives in the world.

## Which industries are you working in?

Our 'vector of attack' against the greatest challenge humanity faces is what we call the 'Urban Stack.'

*The Urban Stack comprises every element of the built environment, from the way our cities are designed, constructed and powered, to the way*

*people live, work and are cared for.*

We call it a stack because it's made up of interconnected and interdependent layers – which collectively enable, build and manage the urban environment. At 2150, we invest across the Urban Stack. We identify organisations that combine the biggest unsolved business problems with the biggest potential for sustainability impact – and there are plenty around.

Example 'layers' include building materials, heating and cooling, waste management, air quality management, urban farming, smart homes and offices, elderly care, rooftop solar power, EV charging infrastructure, IoT sensor and networking, floodplain management, and the growing sector of inner-city, last-mile logistics – which COVID has accelerated massively. Some of the key topics we focus on are architecture, construction and engineering.

The next ten years will see a radical digitisation, industrial standardisation and automation of construction. This will unlock the sector and finally bring it to the efficiency levels of the wider economy. This transformation is only just beginning and the successful exit of Spacemaker, a deeptech urban planning software company that our partners helped back, is a good example of how this sector is about to change.

## What do you look for in a founder?

Many of the startups we plan to back will be addressing large systems-level issues, which affect our buildings, cities and environment.

It takes a certain type of entrepreneur to create and scale those companies. We look for entrepreneurs with the hunger to go all the way and the humility to know they won't get there alone. Who develop proprietary technology, purposeful teams and progressive cultures; who have a rebellious spirit, unflinching resilience, unbounded resourcefulness and absolute reliability alongside the intellectual, technical and executional firepower to create a legacy that will endure.

*They're not launching the next hot app; they're creating 100-year companies that will shape the*

*next generation.*

## Can you talk about your current portfolio?

We have completed one investment based on the first deep-dive, which we did focusing on concrete. This is the single largest CO2 category in the world and the biggest challenge of the Urban Stack.

Concrete represents 7-8% of CO2 emissions worldwide, and consumption of it is increasing. We know we'll need to use concrete over the next 50 years. To find a solution to this problem, we implemented our thesis-driven approach: understand the problem, identify technologies that could address it, and filter for exceptional teams with scaling potential. Key to our process is earning the trust of the entrepreneurs, who, through allowing us to back them, accelerate their technology deployment.

Late last year, 2150 – alongside Amazon and Breakthrough Energy Ventures – invested in CarbonCure, a company mitigating the CO2 impact of concrete. We're now supporting CarbonCure's entry into the European market. [You can see Bill Gates explaining their technology on 60 Minutes](#), at around the 4 minute mark.

## How has COVID-19 changed the way you operate?

I love answering this question, because it is pretty crazy to look back and realise that we have raised a new venture capital fund during COVID-19. 2150 is about to become one of the largest sustainability focused funds in Europe within a year of fundraising, and the founding partners have had limited time to meet physically to build a team and meet with investors raise capital.

We have met face-to-face less than ten times – something we're going to overcompensate for on the side of the pandemic when we open three offices across Europe (in London, Copenhagen, and Berlin)!

On a positive note, we have been able to speak with more investors and entrepreneurs due to less travel. It has however been hard to do due diligence on a number of companies and teams. Firstly, you want to see how founders

interact with their team and not ask them the questions on how they are as managers. Secondly, because some of the startups we are investing into have a hardware component and you want to see the product in real life.

There will be some positives from COVID-19 in the long run – for people and the environment. Urban Stack participants, e.g. contractors have now realised that technology can do much more for us than just being an enabler. It can solve problems in a sustainable way. And healthcare companies have realised that they can create drugs faster than ever before and it does not need to take a decade to find a cure to a new disease.

## What does the future look like? New trends/technologies, changes in the global/local economic landscape?

For the first time in history we have a broad strong tailwind across industries, government and populations that we need to use technology to solve our major sustainable challenges.

*In many places, technology and sustainability still sit in silos, and we need to make sure those are interconnected.*

In the future it is estimated that data centres will make up one third of all energy consumption. Today, mining cryptocurrencies is using the same energy as all of Argentina and the construction industry has not been increasing productivity the last 50 years while being the root cause of more than 35% of annual waste in Europe.

In each of these cases, we need to make sure solutions are solved from both angles. I believe that business models will, for the first time, be unprofitable if they only rely on one angle.

# What makes 2150 different?

At 2150, we're building more than a venture capital fund. As former operators, entrepreneurs and investors we know the value that is derived from collaboration. By acting as a facilitator across this network, and working closely with our portfolio and strategic LPs, we can accelerate the timing, scale and impact of new technologies. They will address the core issues facing the urban environment today and ensure the world in 2150 is a more sustainable, efficient and affordable one. This doesn't just give us an edge as an investor; more importantly, it is also good for the ecosystem and our common future in the urban environment.

Secondly, we know that it won't be easy to find those entrepreneurs, which is why to help us find them, filter them, fund them and facilitate their success, we have brought together a network of outstanding advisors and aligned LPs, and partners across government and business, science and technology, architecture and AI. For example, we have the former chief sustainability officer for President Obama, Christine Harada, and the leading AI technologist, Danny Lange, on our advisory board. Both of them have helped us in finding and evaluating the entrepreneurs we have been looking to back.

Lastly, at our core are the 2150 impact principles and our focus on sustainability, which is a key decision criteria for us when investing and an integral part of our ethos, investment process and philosophy in the fund.

## What one piece of advice would you give founders?

You only have one life, so if you dream of creating your own company, then create one that solves problems that really matter to forthcoming generations.

*Discover 2150*