INNOVATION
LAB
ASIA

NORDIC URBANTECH

SHOWCASING 25 NORDIC STARTUPS







PREFACE

This report introduces 25 Nordic Urbantech startups to a global audience. The aim of this report is to inspire potential investors, partners and clients to explore new opportunities within Nordic Smart City solutions to the mutual benefit of all parties involved.

Nordic Urbantech is certainly relevant to global stakeholders. The Nordic cities are consistently ranked as the most liveable in the world, and remain a hotbed for urban innovation. Stockholm won the World Smart City Award in 2019, Helsinki ranked second in the Global Smart City index 2020, and Copenhagen aims to be the world's first carbon-neutral capital city by 2025.

In this report we shed light on the reasons for this Nordic success, and present the most important hubs across the Nordic countries.

We hope this report will spur innovation, partnerships, and cooperation between Nordic startups and global corporations to shape the future of cities. The 25 companies showcased are highlighting their solutions and ambitions for Asia, and Japan more specifically.

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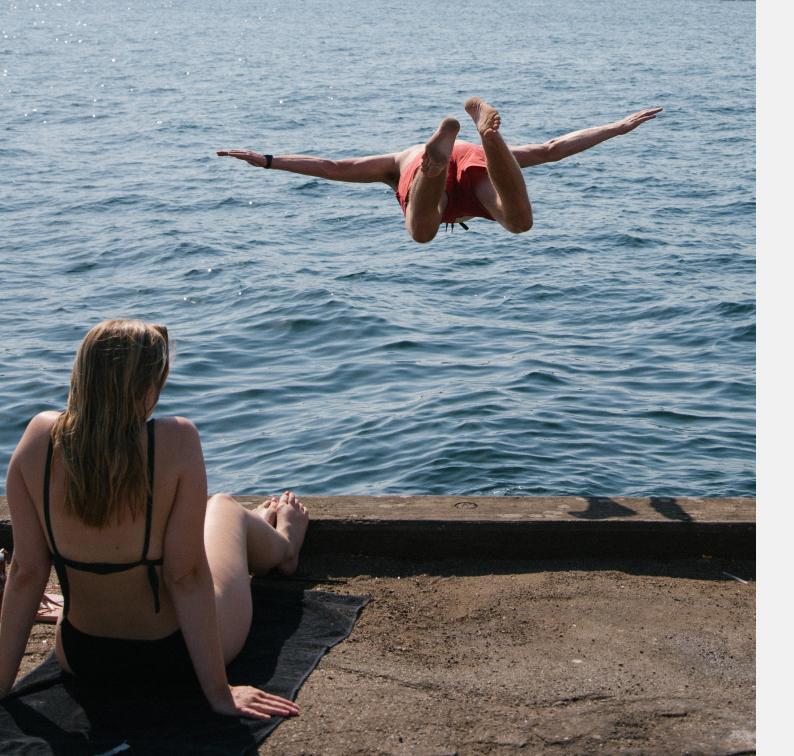
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INDEX

97	Introducing Nordic Urbantech	35	MONTEM
11	Aguardio	36	Nextfood
12	Airplant	39	Pluto Technologies
15	BMS & Greentech Solutions	40	Procura
16	Catenda	43	PurCity
19	CHAOS	44	Sensade
20	Cogo	47	Sensible 4
23	GreenMobility	48	Solarstone
24	Нососо	51	Solartes
27	InfoTiles	52	Supervaisor
28	Leapcraft	55	Ubiqisense
31	Linc	56	VisiLean
32	LYS Technologies	59	ZOAN
		62	Nordic Urbantech & Smart City Hubs

Photo credits: Terry Mclaughlin, Copenhagen Media Center



INTRODUCING NORDIC URBANTECH

In early 2021, the Toyota Motor Corporation performed the Jichinsai ceremony for the initiation of Woven City, the most advanced greenfield Smart City to be built in Japan. Jichinsai is an ancient Shinto ceremony and a cornerstone of any construction project in Japan.

Woven City will be situated at the base of Mount Fuji and serve as home for 2,000 Toyota employees. It will also be a state-of-the-art Living Lab for urban technologies like AI, human mobility, materials science, sustainable energy, robotics and IoT sensors. Incidentally, the city will be designed by Danish architect Bjarke Ingels, thus combining Nordic design with Japanese corporate sensibility.

The Woven City reflects many of the basic tenets of a Smart City: It seeks to leverage on digital solutions to promote sustainability and livability in urban environments, and it aims to solve several problems with one solution, be it within waste, water, energy, mobility or climate adaptation.

Even before the term Smart City became a global badge of honor, Nordic cities excelled in holistic, human centered urban solutions - perhaps the reason why they continuously rank high on numerous global liveability indexes. New digital solutions for urban living are just raising the bar.

With their relatively mild climates and small populations, longterm, comprehensive urban solutions are simpler to design and implement in the Nordics. Nevertheless, some lessons may be derived from the Nordic experience, especially in terms of organization, collaboration and inclusiveness.

Horizontal planning: A prerequisite for holistic planning is the ability to work and collaborate across multiple organizations, be it public bodies, private companies, civil society or universities. This paves the way for a stronger collective understanding of the issues at hand and enables the development of common technical and operational standards. The Nordics has a long history of inclusiveness and community-oriented design that has evolved into triple helix models of innovation that involve numerous stakeholders and strong cross-institutional collaboration.

Photo credits: Daniel Rasmussen, Copenhagen Media Center

Public-private partnerships: With city municipalities being the key driver for city planning, and private companies the main providers of urban solutions, public-private partnerships foster strong innovation ecosystems. These partnerships are beneficial for all parties involved: The industry enjoys stable regulatory frameworks, shared innovation costs, valuable insights into public demands and lucrative home market opportunities. The public institutions obtain knowledge of innovative solutions, which can be integrated into the political visions, and access to private investments to implement grander schemes. And citizens enjoy the implementation of projects addressing societal needs and the green transition.

Transparency and open data: Developing new digital solutions requires access to data, and the Nordics have a long tradition of transparency, data collection and digital governance. With access to these diverse datasets, developers, entrepreneurs, institutions and citizens may gain insights about their cities and transform these data into new applications and services.

Already a string of Nordic Urbantech companies have attracted interest from Japanese investors, especially within mobility: Sensible 4, Einride, Voi, Cleveron, Bolt, and MaaS Global. Over the following pages you will be introduced to 25 Nordic Urbantech startups specially curated for an Asian audience.

DEFINING URBANTECH

All the startups showcased in this report are defined as Urbantech, and provide digital solutions that cater to construction, urban infrastructure, indoor environment, transport mobility, and other aspects of city life. Many of the solutions are SaaS-based or combine IoT devices with software powered by Al and Big Data. Most of the solutions seek to make cities more sustainable, and thus could also qualify within Cleantech, Foodtech, or other verticals. However, they all share a common focus on the urban environment, hence their categorization as Urbantech startups.

6:45 Reducing your shower time will also help you save money

COMPANY DATA

Country: Year of establishment:

Founders:

Investors:

Revenue 2019 (EUR):
No. of employees:
Funding types:
Funding stage:
Accumulated investment:

Denmark 2017 Thomas Munch-Laursen, Niels-Arne Mikkelsen 10,000 - 99,999 1-9

Bootstrapping / Grants / Angel Seed

EUR 700k - 1 million Innovationsfonden

PROVIDING SENSORS THAT HELP PEOPLE LEAD A SUSTAINABLE LIFESTYLE BY REDUCING WATER CONSUMPTION



AGUARDIO

According to the Bureau of Waterworks at the Tokyo Metropolitan Government, bathing and toilets account for more than 60% of daily water consumption in Japanese homes, presenting a huge potential for saving water and energy. Aguardio has developed two digital solutions that actively reduce water consumption for private households, hotels, and companies.

The first product is a sensor for showers that can measure shower usage without needing to be part of the plumbing. With the help of data, symbols and nudging, it also facilitates changes in shower behaviour. The data is transferred to a cloud-based dashboard that provides an analysis of shower behavior and indoor climate. Studies show a 30% reduction of water consumption from showers after installing the Aguardio device. The second product is a leak sensor that attaches to the toilet's water inlet. Leaky valves are common, but difficult to detect. This device works both as a stand-alone sensor or in a network to notify homeowners or facility managers of any leaks.

Neither product requires plumbing to install, making them suitable for use in any new or existing buildings, and enabling them to meet a wide range of demands from single family homes to large establishments.

Ambitions in Japan:

Aguardio wants to address the long history of water scarcity challenges in Japan, and are looking for distribution partners, clients, and funding opportunities.

Company introduction video



Primary contact:

Thomas Munch-Larsen, CEO tml@aguardio.com www.aguardio.com

MERGING TECHNOLOGY AND HOUSEPLANTS TO PROVIDE EXCELLENT INDOOR AIR QUALITY



AIRPLANT

According to WHO, one-third of adult life is spent at work. Predictably, indoor air quality has a huge impact on employees' well-being and productivity. Two pertinent problems in indoor air quality are Volatile Organic Compounds (VOCs), chemicals released by building materials and consumer products found in buildings, and dry air. In high concentrations, VOCs may cause symptoms such as coughing, nausea, fatigue, allergies and headaches. Dry air can cause similar symptoms, and increases the chances of viral transmission.

Airplant has developed a plant-based air purifier that effectively captures VOCs and regulates indoor humidity. Plants such as areca palm, bamboo palm and rubber plant are known to absorb harmful VOCs and are excellent humidifiers. The Airplant system combines technology that enhances these natural effects to improve indoor air quality in homes and offices. Independent testing showed that the Airplant system performs better than comparable air purifiers on the market and removes VOC such as formaldehyde up to 90%.

Recently, there has been a growing concern about "sick building syndrome", attributable to formaldehyde. Airplant's patent pending solution may significantly improve the indoor environment.

Ambitions in Japan:

Airplant is looking for partners with a wide knowledge of Japanese and Asian markets and culture, as well as distribution partners and funding opportunities.

Primary contact:

Camilla Bandholm, CEO cb@airplant.dk airplant.io



COMPANY DATA

Country: Year of establishment:

Camilla Bandholm, Jakob Stoltze Founders: Revenue 2019 (EUR):

0 (pre-revenue)

Denmark

2016

No. of employees:

Funding types: Bootstrapping / Grants Pre-seed

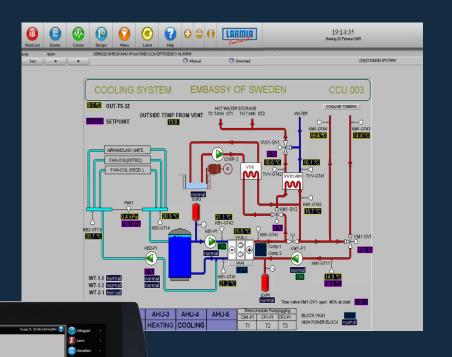
Funding stage: Accumulated investment:

EUR 280k

Investors:

Innovation Fund Denmark.

Realdania



A501-GT3U

COMPANY DATA

Country:SwedenYear of establishment:2012Founders:Bjorn HolmbergRevenue 2019 (EUR):0 (pre-revenue)No. of employees:1-9Funding types:Friends & familyFunding stage:Pre-seedAccumulated investment:EUR 50k

PROVIDING SMART BUILDING AND FACILITY MANAGEMENT SYSTEMS AND SERVICES



BMS & GREENTECH SOLUTIONS

Buildings require teams of engineers working on-site, making routine checks on services such as heating, air conditioning and power systems to ensure proper operation. However, there is a huge digitalisation potential for streamlining processes and cost and resource savings.

BMS & GreenTech Solutions provides smart Building Management Systems and Facility Management solutions that makes it possible to control and automate building systems from a computer, significantly increasing management capacities. The software optimises the performance of every mechanical and electrical component, resulting in a reduction in energy consumption of 20%.

The solution can be installed in any new or existing buildings at only a third the cost of similar products on the market. The system is already in use in many buildings in Sweden including the Royal Palace in Stockholm, as well as buildings in Brussels, Beijing, Tehran, London, Paris, and Tokyo.

Ambitions in Japan:

BMS & GreenTech Solutions has worked with Japanese customers since 2012. Their Larmia Building Management System is being installed in the Embassy of Sweden Building in Tokyo, and in combination with their system, BMS & Greentech Solutions provides the Embassy with total facility management services. They are now actively looking for new distribution and integration partners and clients in need of total facility management services.

Primary contact:

Daiki Yokoyama, Japan Country Manager daiki.yokoyama@bmsgreentech.com bmsgreentech.com

STREAMLINING STAKEHOLDER COLLABORATION FOR CONSTRUCTION AND INFRASTRUCTURE PROJECTS



CATENDA

Building Information Modelling (BIM) has greatly enhanced the efficiency of engineering and construction projects by increasing productivity, reducing rework, and avoiding errors. However, many teams lack the tools to collaborate effectively, leading to frustrating and expensive delays.

Catenda offers smart collaboration solutions for BIM projects. Bimsync is a cloud-based, open BIM platform that streamlines a range of coordination workflow elements, including: task management, file and version management, team communication, progress tracking, and contractor and client communications. Teams can save up to 50 hours per week thanks to more efficient workflow, and cut down on emails by up to 80%. Bimsync enables teams to catch design issues early and make smarter decisions, thereby saving construction costs and project cycle time.

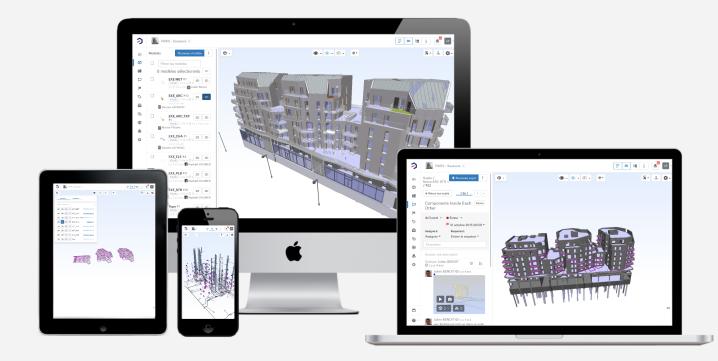
Bimsync is now available in 18 languages, with clients at leading construction companies around the world, including Kajima Corporation.

Ambitions in Japan:

One of the founders of Catenda has lived in Japan and feels a special connection to the country. They already have a global network of distribution partners in Europe, US, South America and Japan, and are seeking to establish a long term and secure presence in the Japanese market. Catenda is looking for distribution partners, clients, funding, and new talents.

Primary contact:

Håvard Brekke Bell, Founder havard.bell@catenda.no catenda.com



COMPANY DATA

Country: Norway **Year of establishment:** 2009

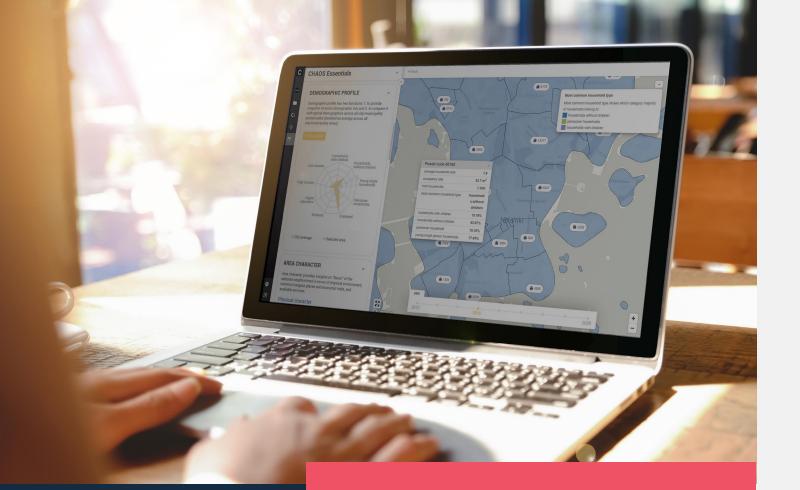
Founders: Håvard Brekke Bell, Ole Jørgen Karud, Dag Fjeld Edvardsen, Jan Erik Askjellrud,

Lars Bjørkhaug

Revenue 2019 (EUR): 1,000,000 +

No. of employees: 20-49 Funding types: VC

Funding stage: Series A



Country: Finland **Year of establishment:** 2017

Founders:

Natalia Rincón, Paloma Bautista,

Torsti Tenhunen

Revenue 2019 (EUR):

10,000 - 99,999 10-19

No. of employees:

Grants / Angel

Funding types: Funding stage:

Seed

Accumulated investment: EUR 2.5 million

Investors:

EUR 2.5 million
JLL, CBRE, NREP, Ramboll, NEWSEC.

Taaleri, Sagax, Nidoco

USING AI TO FORECAST URBAN DEVELOPMENT AND REAL ESTATE OPPORTUNITIES



CHAOS

City planners, developers, and real estate firms are looking to use Big Data to better understand urban trends and adopt data-driven decision making, but there are few tools that can harness this data to generate quick and actionable insights.

CHAOS offers a SaaS-based urban data analytics platform that aggregates data from multiple sources into a single dashboard, enabling stakeholders to analyse the city's demographics and real estate market in fine detail while saving time and resources. The Al algorithm accurately forecasts future trends on both city and neighborhood levels, identifying opportunities based on recent and relevant data, rather than outdated metrics and datasets. This allows decision makers to start addressing future needs and make sustainable choices now.

Moreover, CHAOS utilises crowdsourcing to increase citizen engagement with urban planning. This promotes a more people-centric approach and supports efforts to make cities more liveable.

Ambitions in Japan:

CHAOS regards Japan as a perfect base for scaling into East Asia, and are seeking smart city partnerships, distribution partners, clients, and funding to help them implement their technology and Al forecasts into Japanese city planning.

Company introduction video



Primary contact:

Natalia Rincón, CEO & Co-Founder
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chaosarchitects.com

GATHERING ALL SHARED MOBILITY SERVICES INTO ONE SINGLE APP



COGO

In just a few years, shared mobility has grown rapidly in popularity, from electric scooters and bicycles to cars and mopeds. Many believe this will help cities reduce both carbon emissions and traffic congestion. However, the rapid growth has also led to a high concentration of operators in cities, resulting in a fragmented market that often forces users to check several apps before they can find a nearby ride. This complex market situation slows down the adoption of otherwise-promising shared mobility solutions.

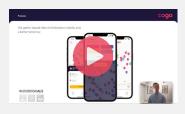
Cogo is an app that gathers all shared scooters, bikes, cars and mopeds as long as they are human or electric powered. Cogo aggregates over 190 different operators in 500 cities worldwide today, with the goal of making it so easy and seamless to move around that shared mobility can compete with private car ownership—both on convenience and price.

In April 2021, Japanese authorities partially eased regulations on E-scooters, and so the shared mobility market in Japan is expected to expand rapidly in the near future, presenting a huge opportunity for Cogo to unleash the full potential of shared mobility.

Ambitions in Japan:

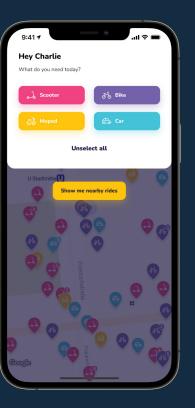
The company has been observing Japanese investments in the Nordic shared mobility industry and is looking for mobility partners, clients, funding, and new ideas.

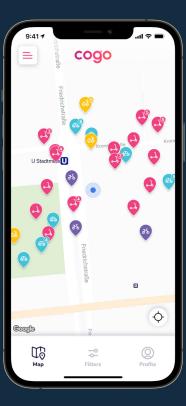
Company introduction video



Primary contact:

Robin Eriksson, Co-Founder & CEO robin@cogoapp.io
www.cogoapp.io







COMPANY DATA

Country:
Year of establishment:
Founders:

Revenue 2019 (EUR):
No. of employees:
Funding types:
Funding stage:
Accumulated investment:
Investors:

Denmark

Robin Eriksson, Bibi Blomqvist,

Martin Røssell 0 (pre-revenue)

Grants / Angel / VC Pre-seed

EUR 1 million
PreSeed Ventures,
Innofounder Experienced,

Business Angels



Country: Year of establishment: Founder: Revenue 2019 (EUR): No. of employees: Funding type:

Funding stage: **Accumulated investment:** EUR 27.6 million Investors:

Denmark

Henrik Isaksen 500.000 +

Private, professional, and institutional investors

Post-IPO

HICO Group, Arbejdernes Landsbank, Kapitalforeningen MP Invest

PROVIDING AN ALL-ELECTRIC CARSHARING PLATFORM THAT SECURES A BETTER URBAN ENVIRONMENT



GREENMOBILITY

According to McKinsey, the shared mobility market now exceeds USD 60 billion in value across the three largest markets: China, Europe and the United States. The recent trend of carsharing has shifted consumer preferences away from car ownership, especially in dense urban environments.

GreenMobility is an on-demand carsharing platform that provides easy and affordable access to EVs for private customers and businesses. It provides a convenient user experience where users can find, reserve and unlock freefloating EVs via an app, and choose a rate or subscription that fits their needs. Vehicles can be parked on-street or at designated parking spaces located across the city, and the company ensures charging, maintenance and optimal placements. This solution ultimately reduces air pollution and contributes to improved livability in cities.

GreenMobility has incorporated an ESG strategy since its foundation and is currently one of the leading EV carsharing providers in Europe, operating 950 EVs across 8 cities in 4 European countries with more than 130,000 registered customers. They are the first EV carsharing provider to reach operational profitability in Denmark and are listed on the Nasdaq Main Market in Copenhagen.

Ambitions in Japan:

GreenMobility is continuously exploring business opportunities in Asia, including partnerships with car manufacturers, distribution partnerships and new funding.

Primary contact:

Anders Wall, COO & Deputy CEO, Head of IR & ESG aw@greenmobility.com www.greenmobility.com

PROVIDING AN ALL-IN-ONE COMMUNICATION PLATFORM THAT CONNECTS TENANTS AND LANDLORDS



HOCOCO

Usually, communication between landlords and tenants happens via emails, phone calls and text messages, but this is inefficient and often leads to misunderstandings and frustrating delays.

Hococo provides a SaaS-based solution that gathers all communication and administrative processes onto a single digital platform, for the benefit of both tenants and landlords. The app-based solution provides assistance and a single point of contact for the tenants around the clock. The platform allows tenants to view lease documents, create repair requests, see facts about the property, and send instant messages to the landlord. For property managers and landlords, the digital solution automatically streamlines operations, which helps them improve customer service, leading to better tenant experience and retention.

The company creates trust and transparency around leases and property operations. Their latest initiative is a customer loyalty program for renters that is similar to airline miles programs.

Ambitions in Japan:

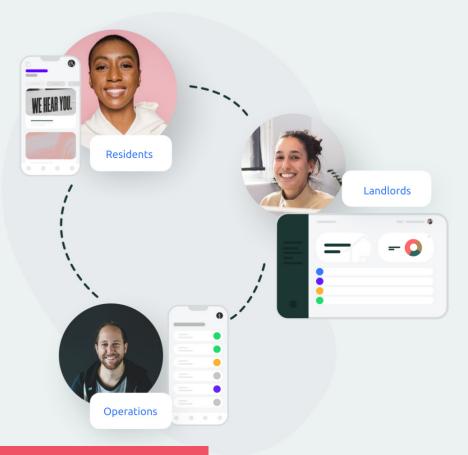
Hococo is looking for new clients and funding.

Company introduction video



Primary contact:

William Shaw, CEO william@hococo.io



COMPANY DATA

Country: Denmark **Year of establishment:** 2018

Founder:

William Shaw, Katrine Anna Larsen,

Peter Bøgh Andreasen, Caspar Mølholt Kjellberg

No. of employees: 1-9
Funding type: Angel
Funding stage: Seed
Accumulated investment: EUR 550k

Investors:

DanBan, FTMO (Malmø),

The Danish Growth Fund



Country: Year of establishment:

Founders:

Revenue 2019 (EUR):

No. of employees: Funding types: Funding stage:

Accumulated investment: EUR 2.8 million Investors:

Norway

2016

Pedja Bihor, Magne Eide, Johnny Alexander Gunneng,

Marco Westergren 100,000 - 499,999

Bootstrapping / Grants / VC

Seed

Proventure, Lyse

MAKING SENSE OF DATA SO TEAMS CAN ACT FASTER AND DO MORE FOR THEIR CITIZENS AND THE ENVIRONMENT



INFOTILES

Connected cities are generating increasing amounts of data from many sources and in many formats. Smart cities rely on InfoTiles to achieve a faster time to value and make sense of the big data sets they generate across water & sewage, recycling, traffic and other utilities. InfoTiles enables teams to act faster and make better decisions, improving the return on investment for connected cities.

InfoTiles offers a SaaS-based platform for aggregating, analysing, and visualising data in real-time, thereby accelerating digital transformation for Smart Cities, Digital Water, and Industry 4.0. The platform rapidly combines data from IoT sensors, existing systems, SCADA, and open sources. InfoTiles users make better decisions after extracting valuable information using intuitive analytics tools.

InfoTiles has collaborated with Microsoft and been featured as the only Norwegian Startup in the celebrated #BuildFor2030 campaign, supporting the United Nations' Sustainable Development Goals.

Ambitions in Japan:

InfoTiles has partnered with Crayon, Sopra Steria, and Microsoft and is ready to operate in all markets. InfoTiles believes that entering the Japanese market will provide additional insights and provide new growth opportunities. They are currently searching for distribution partners, clients, funding, and new ideas.

Company introduction video



Primary contact:

Johnny Alexander Gunneng, CEO johnny.gunneng@infotiles.no www.infotiles.no

PROVIDING HEALTHY BUILDINGS SOLUTIONS BASED ON SENSORS AND AI



LEAPCRAFT

Air pollution and noise is a major issue in most modern cities. Pollution reduces quality of life, causes or exacerbates illness, and lowers productivity. In Tokyo alone, Greenpeace estimated that air pollution caused 40,000 premature deaths in 2020, and USD \$43 billion in economic losses.

Leapcraft provides environmental monitoring and IoT solutions for cities, buildings and transport systems that enable measurement, monitoring and benchmarking of air quality, thermal comfort and noise. The Leapcraft sensors capture data from 15+ parameters and transfers the real-time information into an Al-powered software system, helping authorities and individuals make data-driven decisions.

The system can be used for optimizing air quality, thermal comfort, and acoustics in buildings. It can also forecast the risk of spreading airborne diseases, mould and contaminants in workspaces. The system also utilises occupancy data to optimise floor space by integrating analytics on utilisation, capacity and trend forecasting.

Ambitions in Japan:

Asia, especially Japan, represents an important market for Leapcraft with a focus on health and well being, as well as high quality building stock. Leapcraft is looking for distribution partners, clients, and co-investors.

Company introduction video



Primary contact:

Vinay Venkatraman, CEO
vv@leapcraft.dk
www.leapcraft.dk



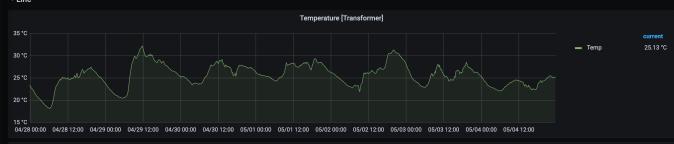
COMPANY DATA

Country: De Year of establishment: 20 Founders: Vi Revenue 2019 (EUR): 50 No. of employees: 1-Funding type: Be Funding stage: Se Accumulated investment: El Investors: Lii

2013 Vinay Venkatraman 500,000 + 1-9 Bootstrapping / VC

Series A EUR 2 million Lindab Group







Country:

Year of establishment:

Founders:

Revenue 2019 (EUR):

No. of employees:

Funding type:

Funding stage:

Accumulated investment:

Denmark 2017

Pranay Krishen 10.000 - 99.999

1-9

Bootstrapping / Grants

Seed

EUR 1.7 million

Investors: Danish I

Danish Marked Development Fund, Innofonden, Horizon Europe Programme

DIGITIZING BUILDINGS AND GRID NETWORKS USING SPECTRAL ANALYTICS AND POWER-LINE COMMUNICATIONS



LINC

There is a huge potential for energy savings in buildings, but also a lack of data available to identify energy inefficiencies, pin-point maintenance problems, and maximise utilisation of renewable energy.

Linc provides an integrated hardware and software solution that enables real-time energy management in any building, providing actionable insights and granular analytics that helps reduce energy consumption and carbon emissions by up to 30%.

Linc's IoT device installs in the main electrical panel of any residential, commercial or industrial building and captures the electrical signals of each individual appliance, process, and occupant. This enables monitoring of electricity use at a highly detailed level, assisting people and businesses to have more sustainable lives and operations.

The Linc device is the only electrical waveform analyser of its kind, and costs at least 92 times less than the closest alternative. Additionally, the software solution features diagnosis of inefficiencies in buildings, controls for automation, and maximising utilisation of clean energy sources.

Ambitions in Japan:

Linc already has operations in France, Spain, Italy, India, Australia, Switzerland and Canada, working in partnership with major energy utilities, facility management companies, and energy service consultancies. They consider Japan an ideal base for their regional operations and hardware manufacture, and are looking for distribution partners, clients, R&D, and new ideas.

Primary contact:

Pranay Krishen, CEO pranay@linc.world www.linc.world

ALLEVIATING THE IMPACT OF ARTIFICIAL LIGHT ON HUMAN HEALTH AND WELL-BEING



LYS TECHNOLOGIES

In modern societies, an average person spends approximately 90% of their time indoors under artificial lighting. As a result, our natural sleep-wake cycles (called circadian rhythms) are disturbed, causing a range of problems, including sleep issues, reduced energy, and lower quality of life.

LYS Technologies has developed a digital and scalable solution for individuals and enterprises that enhances well-being by restoring correct circadian rhythms. The solution consists of a wearable light sensor that tracks the user's light levels throughout the day, a dashboard where the data can be viewed in real time, along with personalised guidance and wellbeing programs to enhance well-being and change behavior. Moreover, the company has developed a human-centric and personalized lighting integration that synchronises smart lights with the user's circadian rhythm, thereby alleviating the negative effect of artificial light in homes and offices.

According to the Global Sleep Survey 2021 published by Philips, Japan had the lowest level of sleep satisfaction among 13 advanced economies worldwide. LYS Technologies' solution may help the Japanese population find a better night's sleep. Moreover, good light improves productivity during the day and this way contributes to better occupational outcomes.

Ambitions in Japan:

LYS Technologies is currently operating in the European and the UK markets. They are seeking to expand outside of Europe with a goal of establishing partnerships with large multinational corporations in 2021. LYS Technologies is looking for distribution partners, clients, and partnerships.

Company introduction video



Primary contact:

Christina Friis Blach Petersen, CEO & Co-Founder christina@lystechnologies.io lystechnologies.io



Country: Year of establishment:

Founders:

Christina Friis Blach Petersen. Hugo Starrsjo

Revenue 2019 (EUR): No. of employees:

Funding types: Funding stage: Bootstrapping / Grants / Angel

Seed EUR 700k

Denmark

2016

Accumulated investment: Investors:

88 Capital Partners,

100,000 - 499,999

Jason Kingdon, Innobooster



Country:

Year of establishment:

Founders:

Revenue 2019 (EUR):

No. of employees:

Funding types:

Funding stage:
Accumulated investment:

Investors:

Denmark 2016

Christian Østergaard Laursen,

Anders Høedholt

100,000 - 499,999

1-9

Bootstrapping, Grants

Seed

EUR 550k

The Danish Environmental Protection

Agency (MUDP), European Space Agency BIC,

Innovation Fund Denmark

PROVIDING AIR QUALITY MONITORING SOLUTIONS FOR URBAN ENVIRONMENTS



MONTEM

According to the World Bank, air pollution was responsible for an economic loss of USD 225 billion in 2013; however, many cities still lack air pollution data on street levels that can aid authorities in tackling this public health issue.

MONTEM provides an environmental sensor network solution for urban environments. The sensors measure particle pollutants, as well as environmental attributes such as temperature and humidity. The wireless sensor aggregates the data into a virtual map of the city, indicating areas with high pollution in realtime. The company also provides an API that enables access to the data and integration of other IoT services.

The MONTEM sensor has a beautiful minimalistic design and is entirely powered by the integrated solar panel. The solution facilitates urban planners' access to pollution data and contributes to improved liveability and movement towards sustainable urbanization.

Ambitions in Japan:

Currently, the MONTEM sensors are operating in Denmark, Australia and Germany. They now want to address air pollution problems in Japanese cities, and are looking for distribution partners, funding, R&D opportunities and new ideas.

Primary contact:

Ganesh Ram, Chairman
g.ram@montem.io
www.montem.io

VERTICAL FARMING SOLUTIONS FOR FLAVORFUL AND EFFICIENT LOCAL FOOD PRODUCTION IN CITIES



NEXTFOOD

According to the United Nations, the world population is expected to reach 9.7 billion by 2050, of which 68% will live in urban areas. Undoubtedly, this massive urbanization on a global scale will disrupt the traditional food supply chain, and calls for a rethinking of agriculture.

Nextfood has developed an indoor vertical farming solution that makes it possible to grow high-quality, flavorful food locally, all year round. In a Nextfood farm, crops are grown in an aeroponic nutrient mist instead of soil, and cloud-based Al software ensures automation and optimal environment for plant growth. Moreover, the vertical farm is extremely efficient: the yield of a 1m² Nextfood farm is comparable to 200 m² of an outdoor farm, requires 98% less water, saves more than 75% of fertiliser and uses zero pesticides.

The Nextfood farm can be scaled to meet different production demands from supermarkets and restaurants to large plant factories. The vertical farming solution presents a huge potential for dense urban areas in Asia, where spaces can be optimally utilized to secure food for growing populations.

Ambitions in Japan:

Japan is at the forefront of vertical farming with commercial plant factories in operation. Nextfood is looking for new clients, local franchisees and funding opportunities.

Company introduction video



Primary contact:

Rasmus Bjerngaard, Co-Founder & CEO
rb@nextfood.co
nextfood.co

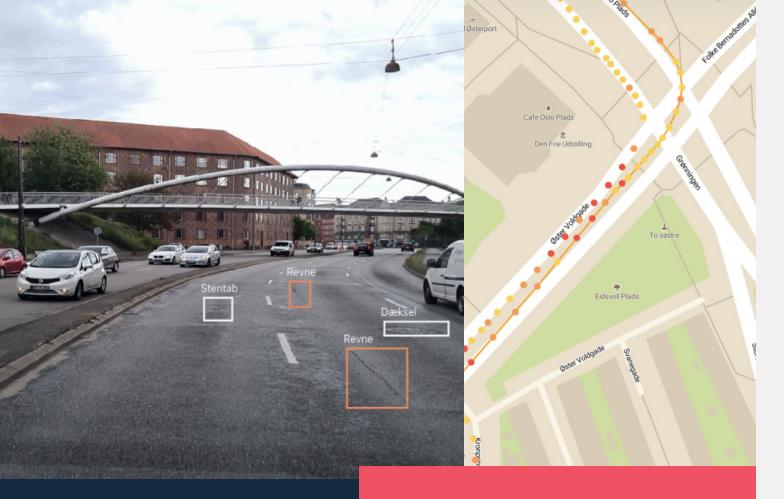


Country:
Year of establishment:
Founders:

No. of employees: Funding types: Funding stage: Denmark 2017 Rasmus Bjerngaard, Hannes Lindal 20-50 Private investors

Series A





Country: Year of establishment: Founders:

Revenue 2019 (EUR):
No. of employees:
Funding types:
Funding stage:
Accumulated investment:

Denmark
2019
Johan Bender,
Jesper Henrichsen
0 (pre-revenue)
1-9
Bootstrapping / Grants
Seed
EUR 300k
Innovationsfonden,
VækstFonden

USING AI FOR EARLY DETECTION OF DAMAGED ROAD SURFACES AND OTHER INFRASTRUCTURES



PLUTO TECHNOLOGIES

Poor road maintenance leads to serious accidents and increases fuel consumption of vehicles. While municipalities spend a considerable amount of resources to ensure good road conditions, there is a huge potential to use digital technologies in the early detection of damages and streamlining of repair operations.

Pluto Technologies provides a smart road maintenance management solution. The core of the solution is an Alintegrated computer vision that automatically inspects paved road surfaces from a smartphone mounted on the dashboard of service trucks like city sweepers during their daily services. The data and videos are gathered into a cloud-based dashboard, with which maintenance staff can make off-site assessments and manage repairs. The solution enables timely road repair and can prolong the life-span of roads by up to 30%, resulting in savings of money and resources for municipalities.

Japan is a highly urbanised country with heavy traffic and an extensive road network. In addition, climate change, natural disasters, and severe weather can further shorten the lifespan of roads. Pluto Technologies' solution can help Japanese municipalities to achieve significant savings.

Ambitions in Japan:

Pluto Technologies is looking for distribution partners, funding, and new ideas.

Primary contact:

Johan Bender, CEO jb@pluto.page pluto.page

PROVIDING A DIGITAL REAL ESTATE PLATFORM THAT ENHANCES CUSTOMER EXPERIENCE



PROCURA

The real estate process can be time-consuming, frustrating and require long negotiations between the parties involved.

Procura provides an online platform that enhances the real-estate process for both sellers and buyers. For sellers, the platform offers a free self-check to generate a valuation based on public listings and official purchase agreements for comparable assets before hiring a certified Procura agent. For buyers, the platform aggregates all loan providers and their interest rates for a quick overview, making it easier to plan finances and assess refinancing options. Moreover, the platform offers an online home for your home, where owners can access all relevant information and documents related to their property, upload relevant information and create a maintenance book that will follow the property, regardless of changes in ownership.

Procura is the largest online property service in Iceland and the only platform to offer free access to market value of all residential properties in the country.

Ambitions in Japan:

Procura wants to investigate their market fit for the Japanese real estate market, and are looking for funding opportunities and new ideas.

Primary contact:

G.Andri Bergmann, CEO
gandri@procura.is
procura.is

COMPANY DATA

Country:
Year of establishment:
Founders:

ounders:

Revenue 2019 (EUR): No. of employees:

Funding types:
Funding stage:
Accumulated investment:

Iceland 2020

G.Andri Bergmann,

Innskráning með rafrænu auðkenni

Alex Kostin
0 (pre-revenue)

Bootstrapping Seed

EUR 100k



Country:
Year of establishment:
Founders:

unders:

Revenue 2019 (EUR):
No. of employees:
Funding types:
Funding stage:
Accumulated investment:

Denmark 2017 Morteza G. Eftekhar, Nassim Bashokouh, Mohammad Ghorbani Eftekhar 99,999 – 499,999 1-9 Bootstrapping / Grants Seed

EUR 500k

TURNING BUILDINGS INTO LARGE SCALE CARBON CAPTURE AND AIR PURIFICATION SYSTEMS



PURCITY

According to the WHO, air pollution causes over four million premature deaths every year, primarily in cities. With 68% of the global population projected to live in urban areas by 2050, there is not only an urgent need to find ways of reducing air pollution, but also to actively capture carbon from air.

PurCity has developed a patented, sustainable, and highly efficient self-cleaning air purification system called GapS, that directly captures carbon dioxide and cleans air by turning new or existing buildings into large scale air purification systems. The GapS system is capable of directly capturing 15-20 tons of carbon dioxide per building as well as helping to save 10-20% energy consumption in the building annually.

PurCity's technology presents an immense market potential in Japan's densely populated urban centres, and presents opportunities to expand into neighbouring countries.

Ambitions in Japan:

PurCity has signed strategic partnership agreements in South Korea and Singapore. They see Japan as the next strategic location to showcase their solution and expand into the Asian market, and are now looking for smart investment, distribution partners, funding, new talents and R&D opportunities.

Company introduction video



Primary contact:

Morteza G. Eftekhar, Founder & CEO mge@purcity.com purcity.com

PROVIDING SMART PARKING MANAGEMENT SOLUTIONS USING IOT TECHNOLOGY



SENSADE

Many cities are struggling with parking problems, not due to a lack of vacant parking slots, but simply because drivers don't know where they can be found. Drivers often spend long frustrating hours roaming around town, adding to congestion.

Sensade provides an IoT-based smart parking solution that provides real-time information about parking availability across the city. Available parking spaces are displayed on LED street signs that refer drivers directly to a free parking space. Stakeholders such as municipalities and private operators can view historical and real-time data on a dashboard, allowing for further analysis of parking patterns, and thus the ability to optimize parking management. Moreover, the company offers API solutions for hardware and software integration.

Sensade's solution has a huge potential to optimise space and time in dense and busy urban environments, ultimately mitigating traffic congestion and air pollution while improving drivers' experience.

Ambitions in Japan:

Sensade believes their solution can bring great value to the dense and busy Asian urban environments, and they are looking to connect with investors with knowledge on market entry and scaling in Asia, as well as distribution partners and clients.

Company introduction video



Primary contact:

Kenny Lafon, Co-Founder % COO
kenny@sensade.com
sensade.com



COMPANY DATA

Country: Year of establishment:

Founders:

Kenny Lafon, Jens Korshej, Thomas Olsen

10,000 - 99,999

Revenue 2019 (EUR): No. of employees:

1-9

Funding types:

Bootstrapping / Grants / Angel

Funding stage:
Accumulated investment:

Seed EUR 670k

Denmark

Investors:

Innovation Fund Denmark,

SEBC HOLDING



Country: Finland
Year of establishment: 2017
Founders: Harri Sa

Harri Santamala, Tommi Rimpiläinen, Jari Saarinen, Jussi Suomela

Revenue 2020 (EUR): 1.7 million

No. of employees: 50+

Funding types: VC

Funding stage: Series A

Accumulated investment: EUR 10 million

Investors:

50+ VC Series A EUR 10 million Nordic Ninja VC, Itochu

PROVIDING SELF-DRIVING SOFTWARE THAT ENABLES OPERATION IN ALL WEATHER CONDITIONS



SENSIBLE 4

Self-driving vehicles rely on a system of sensory devices like cameras, radar, ultrasonic, and LiDAR, and sophisticated software that processes all the sensory input. However, adverse weather like heavy rain, snow and dense fog impedes sensor performance, preventing year-round operation of autonomous vehicles.

Sensible 4 is the world's leading provider of full-stack self-driving software. They have developed a unique self-driving technology that operates safely and accurately even under challenging weather conditions and in areas with limited GPS support, enabling the use of self-driving vehicles in a wider range of regions and weather conditions.

The company has won multiple design awards, and conducted successful pilots on public roads in the Nordics in collaboration with MUJI and Toyota, and they are launching the world's first commercial SAE Level 4 self-driving software DAWN in 2022. Sensible 4 takes self-driving technology from the pilot phase to becoming a mainstream technology.

Ambitions in Japan:

In 2020, Sensible 4 secured a USD 7 million in Series A funding round from Japanese investors including Nordic Ninja VC and Itochu. They are currently holding their second Series A round and looking for partners and investors to provide driverless driving software in 2022 and overseas market expansion with a focus on Japan.

Company introduction video



Primary contact:

Tsuneki Kaiho, Business Development Director
tsuneki.kaiho@sensible4.fi
sensible4.fi

DEVELOPING BEAUTIFUL, ROOF TILE-INTEGRATED SOLAR PANELS



SOLARSTONE

Conventional solar panels mounted on top of roof tiles may be a great source of clean energy, but are rarely nice to look at, and relatively expensive to install.

Solarstone has developed building-integrated solar panels that act as both roof tiles and PV modules. The Solarstone panels are durable and robust, yet beautifully designed so that they do not compromise the aesthetics of a given building. The panels are directly mounted onto the building frame, thereby saving roofing material and weight on the roof, which is a huge advantage in Japan where heavy roofs may lead to catastrophic consequences in case of an earthquake.

Having supplied solar panels to over 450 buildings in Northern Europe, the company is quickly attracting interest across Europe. Solarstone's solar panels may appeal strongly to design-conscious consumers and drive adoption of solar panels in Japanese homes.

Ambitions in Japan:

The growing Japanese solar roofing market presents a great opportunity for Solarstone, and they are looking for distribution partners, clients, funding, acquisition and new ideas.

Company introduction video



Primary contact:

Tarvo Kärgenberg, Business Director tarvo@solarstone.ee solarstone.ee



Investors:

Country: Estonia
Year of establishment: 2015

Founders: Silver Aednik, Mattis Jürimäe,

Mait Kukk
Revenue 2019 (EUR): 500,000 +
No. of employees: 20-49
Funding types: Angel
Funding stage: Series A
Accumulated investment: EUR 500k

48



Country: Year of establishment: Founders:

Revenue 2019 (EUR): 0 (pre-rei
No. of employees: 1-9
Funding types: Grants
Funding stage: Pre-seed
Accumulated investment: EUR 30k
Investors: Chalmers

2020
Anna Hofmann,
Kasper Moth-Poulsen,
Peter Sellei
0 (pre-revenue)
1-9
Grants
Pre-seed
EUR 30k
Chalmers Ventures

Sweden

DEVELOPING A SMART WINDOW WITH HIGH THERMAL MASS



SOLARTES

Many countries are increasing their efforts to reduce energy consumption in buildings. In Japan, the revised Building Energy Conservation Law came into full effect in April 2021, further driving the demand for high-performance building materials.

Solartes is developing an innovative window technology based on a smart material that captures and stores energy from the sun during the day and releases heat after sunset, reducing energy consumption and temperature fluctuations in buildings. The Solartes material comes in the form of a thin transparent panel that is light and mechanically robust, can be produced in any shape, and is therefore suitable for various uses. Over the course of one day, a 4mm thin transparent Solartes panel will store as much thermal energy as a 2.5 cm thick wall of concrete.

The material's unique thermal properties and high transparency allows for an increased flexibility in facade design to bring in more daylight. Therefore, the company has an immense potential to accelerate renewable energy transition and significantly enhance occupants' well being.

Ambitions in Japan:

Solartes is looking for funding, R&D, and new ideas.

Primary contact:

Anna Hofmann, CEO
anna.hofmann@solartes.se
www.solartes.se

USING CROWDSOURCING AND AI TECHNOLOGIES TO SAVE LIVES IN TRAFFIC



SUPERVAISOR

According to the WHO, road traffic accidents are the biggest cause of death for young people, and accounts for 3% loss of GDP in most developed countries. Traffic law enforcement is expensive and inefficient, and current insurance approaches have only had limited impacts on driver behaviour.

Supervaisor is the world's first DeepTech startup that focuses on signals of dangerous driving behaviour. Having already crowdsourced and analysed over a quarter million traffic videos, the company seeks to improve traffic safety by integrating their Al into a wide range of applications such as mapping risk areas, traffic counting, law enforcement support, providing fleet offence statistics, accident scene driveby videos, and offering risk signal APIs for insurance providers.

Moreover, the company has developed IP solutions to advance the use of machine learning for urbantech in privacy sensitive contexts, allowing the processing of a growing stream of both crowdsourced and edge device videos without infringing on individual privacy.

Ambitions in Japan:

The founder has lived in Tokyo, and the company has received funding from five Japanese investors including Shin Iwata from Miraise VC. Given that the company feels a special connection to the country, they are actively exploring strategic partnerships and funding opportunities.

Company introduction video



Primary contact:

Silver Keskkula, Founder silver@supervaisor.com www.supervaisor.com



Country:

Year of establishment:

Founder:

Revenue 2019 (EUR):

No. of employees: Funding types:

Funding stage:

Accumulated investment:

Investors:

Estonia 2018

Silver Keskkula

0 (pre-revenue)

1-9 Angel

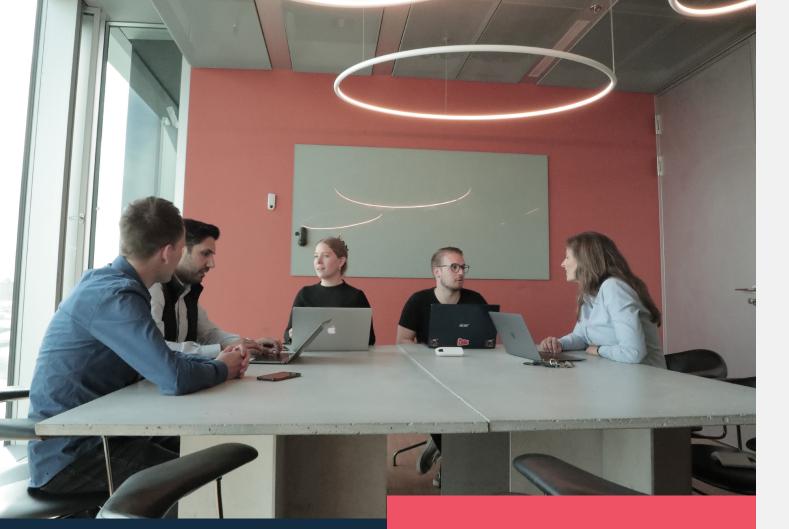
Pre-seed

EUR 1.3 million Jaan Tallinn.

Taavet Hinrikus, Sten Tamkivi,

Taavi Kotka,

Shin Iwata (Miraise VC), David Rowan and others



Country: Year of establishment:

Founders:

Revenue 2019 (EUR): No. of employees:

Funding types: Funding stage:

Accumulated investment:

Denmark 2016

Per Eld Ibsen, Palle Geltzer Dinesen

500,000 +

Grants / Angel

Seed EUR 2.5 million

USING IoT TO ENSURE SMARTER SPACE AND RESOURCE MANAGEMENT IN SHOPS AND OFFICE SPACES



UBIQISENSE

Property owners and facility managers often lack insight into their occupants' behaviour, resulting in lower productivity, higher utility bills, and inefficient use of space.

Ubiqisense offers smart sensor and IP-camera solutions that collect and analyse occupants' behavioral patterns and space usage data for office and shop environments. The solution can be easily integrated into existing Building Management Systems to optimise air conditioning, lighting, and resource schedules according to real-time occupancy data, while providing an overview of space utilisation to make the most of all floor areas. The solution can help building operators make smarter decisions that improve energy efficiency, occupant satisfaction and productivity, ultimately supporting sustainability efforts. For retailers, the solution may optimize product displays and shelf designs to meet customer buying needs.

High real estate costs in Japan makes Ubiqisense's solution highly relevant for the Japanese market. Using the same technology, the company now offers social distancing solutions to support a safe return to offices after the COVID-19 pandemic.

Ambitions in Japan:

Ubiqisense is looking for distribution partners, clients, funding, and new ideas.

Company introduction video



Primary contact:

Palle Geltzer Dinesen, CEO palle.dinesen@ubiqisense.com www.ubiqisense.com

PROVIDING A CONSTRUCTION PROJECT MANAGEMENT PLATFORM BASED ON THE LEAN CONSTRUCTION PRINCIPLES



VISILEAN

According to a McKinsey report, productivity within construction has been stagnant or declining in Japan and other advanced economies over the past 20 years. Many construction firms have adopted BIM (Building Information Modelling) to improve efficiency, but are struggling to realise its full potential in terms of increased efficiency.

VisiLean has developed a cloud-based project management platform that streamlines all aspects of construction projects based on the Lean principles, a methodology designed to maximise productivity and minimise cost. The platform improves efficiency and enables a holistic digital transformation of contractors and subcontractors.

The platform digitalises the entire construction project life cycle, making it possible for all stakeholders – contractors, clients, consultants and designers – to connect through desktop browsers and mobile apps, and visually manage and track the project. VisiLean integrates the entire value chain, from how things are built to what is being built, so the plan and the actual progress can be easily visualised.

Ambitions in Japan:

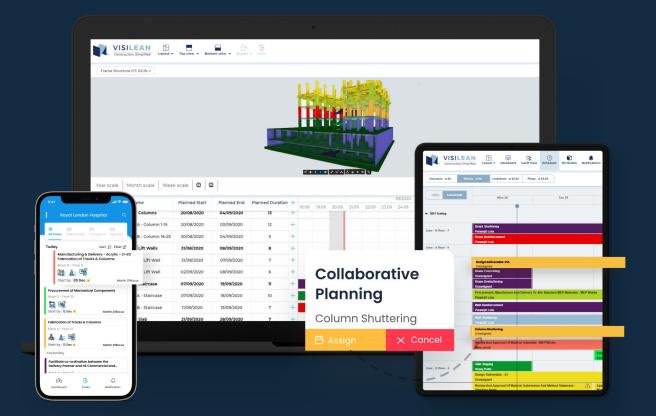
VisiLean is already being used in the UK, Ireland, Middle East, India and USA. Now they are looking to expand to Japan. They are already in contact with two major Japanese construction companies, and are looking for new distribution partners, clients, and funding.

Company introduction video



Primary contact:

Bhargav Dave, CEO bhargav@visilean.com visilean.com



COMPANY DATA

Country: Finland **Year of establishment:** 2015

Founders: Bhargav Dave, Stefan Boddy,
Martin Zilliacus

Revenue 2020 (EUR): 100,000 - 499,999

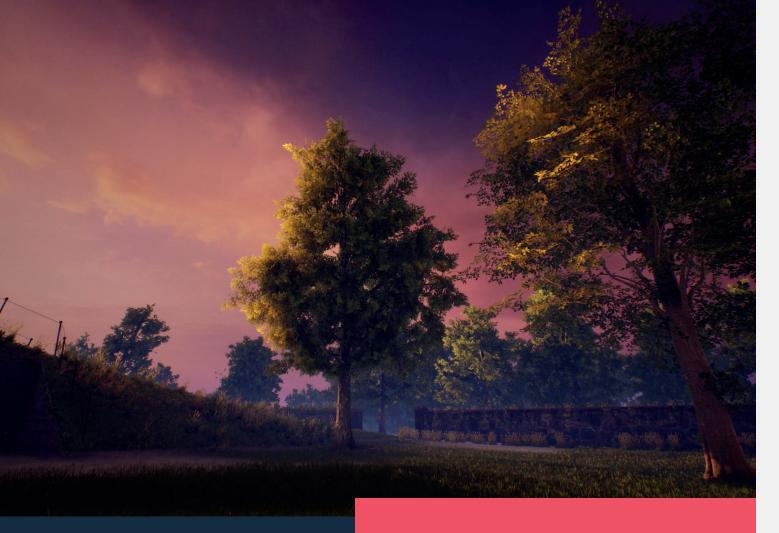
No. of employees: 20-49

Funding types: Bootstrapping / Grants / Angel

Funding stage: Seed

Accumulated investment: EUR 1 million
Investors: EUR 1 million
Relab. Garu Investments.

Business Finland



Country: Year of establishment: Founders:

Revenue 2019 (EUR): No. of employees: Funding types: Funding stage: Finland
2010
Miikka Rosendahl,
Pauli Kangasniemi,
Laura Olin
500,000 +
above 100
Friends & family
Series A

PROVIDING CUTTING EDGE VR, AR, AND XR EXPERIENCES FOR THE URBAN SPACE



ZOAN

According to a report by VnyZ Research, the AR and VR market will see a 48.8% growth in the next four years, reaching USD 161.1 billion in revenue by 2025. Many industries have realised the huge potential of this technology to create powerful experiences.

ZOAN is an award-winning visualisation studio that creates high-quality VR experiences using real-time 3D modelling technologies. Their hyper-realistic visualisation solution provides a fast and cost-effective way to create immersive experiences for a wide range of applications such as real estate marketing, virtual tourism, and virtual prototyping of urban designs. In addition, the company enables virtual concerts, connecting fans around the world during pandemic lockdowns.

Over the past 10 years, ZOAN has delivered projects for clients such as Finnair and Warner Music. Recently they launched Virtual Helsinki, a virtual twin of the Finnish capital, which has attracted interest across the industry.

In 2020, Deloitte listed ZOAN as one of Finland's 50 fastest growing technology companies.

Ambitions in Japan:

ZOAN sees robust growth in the Japanese VR/AR 3D market, and identifies the country as the key market to start their expansion into the Asia Pacific region. They seek companies who can assist in generating new platforms and new business concepts in the VR/AR industry, as well as funding, acquisition opportunities and new talents.

Company introduction video



Primary contact:

Paul Yang, President Japan
paul.yang@zoan.fi
zoan.fi









SCLARSTONE













Aguardio

Pluto



















B M S GreenTech

Solutions







NORDIC URBANTECH & SMART CITY HUBS



STAKEHOLDER OVERVIEW

PAN-NORDIC ORGANISATION

Nordic Smart City Network

A collaborative initiative funded by Nordic Innovation facilitating the pan-Nordic efforts towards creating healthy, livable and sustainable cities. At present, the network unites 21 cities across five Nordic countries.

STAVANGER

2 Nordic Edge

Norway's official non-profit, smart city organisation working in close collaboration with private companies, municipalities and city administrations to promote smart city solutions.

Innoasis

A Nordic Edge smart city cluster and co-working space located in the city of Stavanger, offering a wide range of mentoring, piloting and accelerator programmes.

COPENHAGEN

BLOXHUB

Denmark's main hub and co-working space for urban development. BLOXHUB is an ecosystem unto itself, serving as a home to over 400 companies, organisations, research institutions and public bodies.

5 Urbantech Accelerator

A non-equity Urbantech accelerator and innovation program powered by Rainmaking and based in BLOX-HUB, offering piloting opportunities in collaboration with major Danish corporations and with support from Realdania and Industriens Fond.

O PropTech Denmark

A non-profit cluster organisation with more than 100 members, dedicated to gathering and nurturing the Danish real estate and Proptech ecosystem.

HELSINGBORG

7 H22

An initiative by the city of Helsingborg for improving quality of life and creating a smarter and more sustainable city. H22 is also organizing the City Expo in 2022.

STOCKHOLM

8 Smart City Sweden

A state-funded smart city platform organisation, dedicated to strengthening the cooperation between Sweden and other countries within sustainable urban development.

TALLINN

Tallinnovation

A smart city competition organised by the city of Tallinn and Science Park Tehnopol, providing testing grounds and business support for startups and their new innovative solutions.

HELSINKI

WiraHub

A non-profit association providing a platform for learning, knowledge sharing, and networking across the Finnish real estate and construction ecosystems.

Urban Tech Helsinki

A startup incubator operated by the City of Helsinki and Aalto University, supporting and accelerating the formation and early growth of research-oriented Urbantech companies.

PropTech Finland

A cluster organisation building a network within the Finnish real estate and construction innovation and connecting growth companies and potential clients.

64 65

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