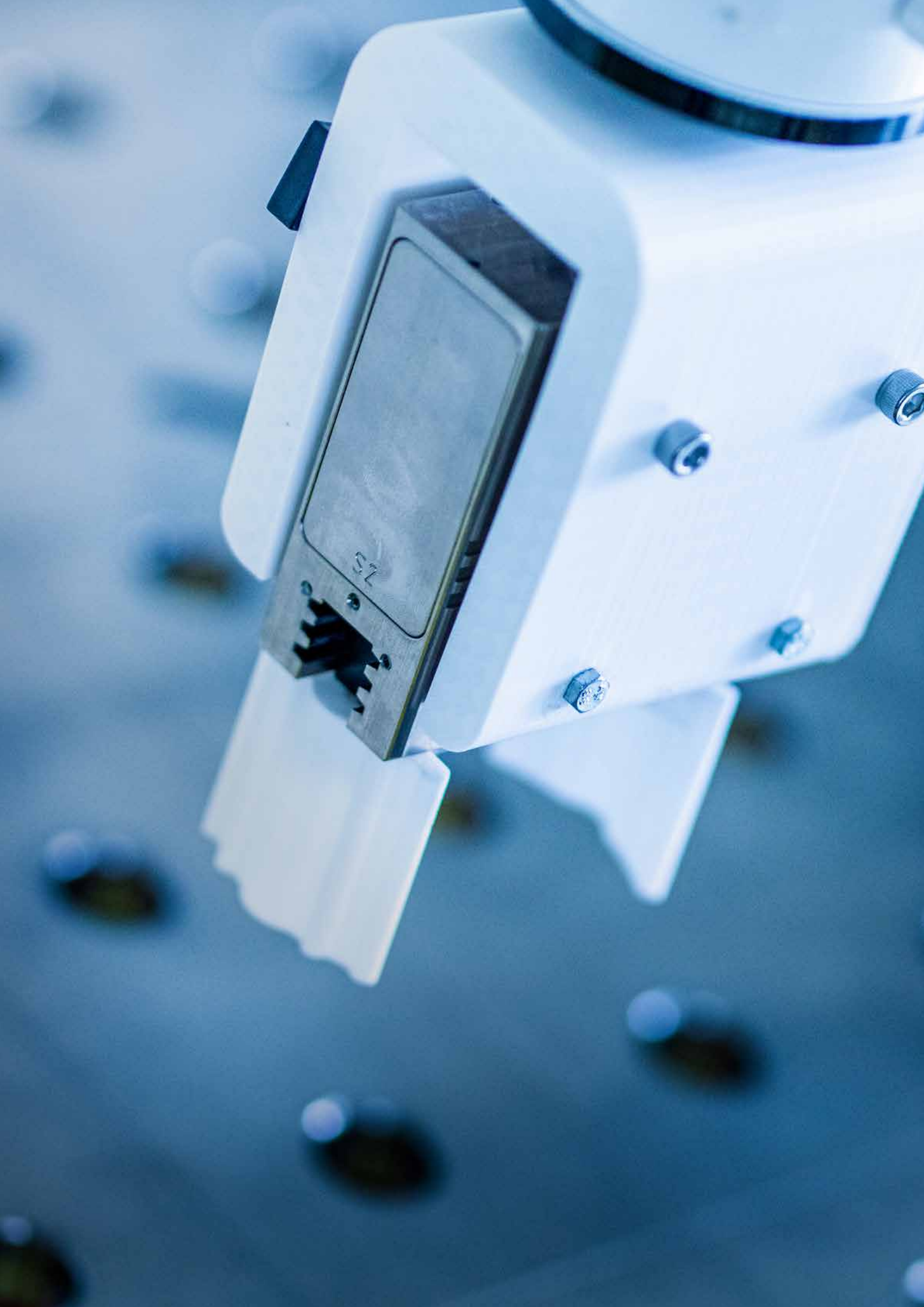
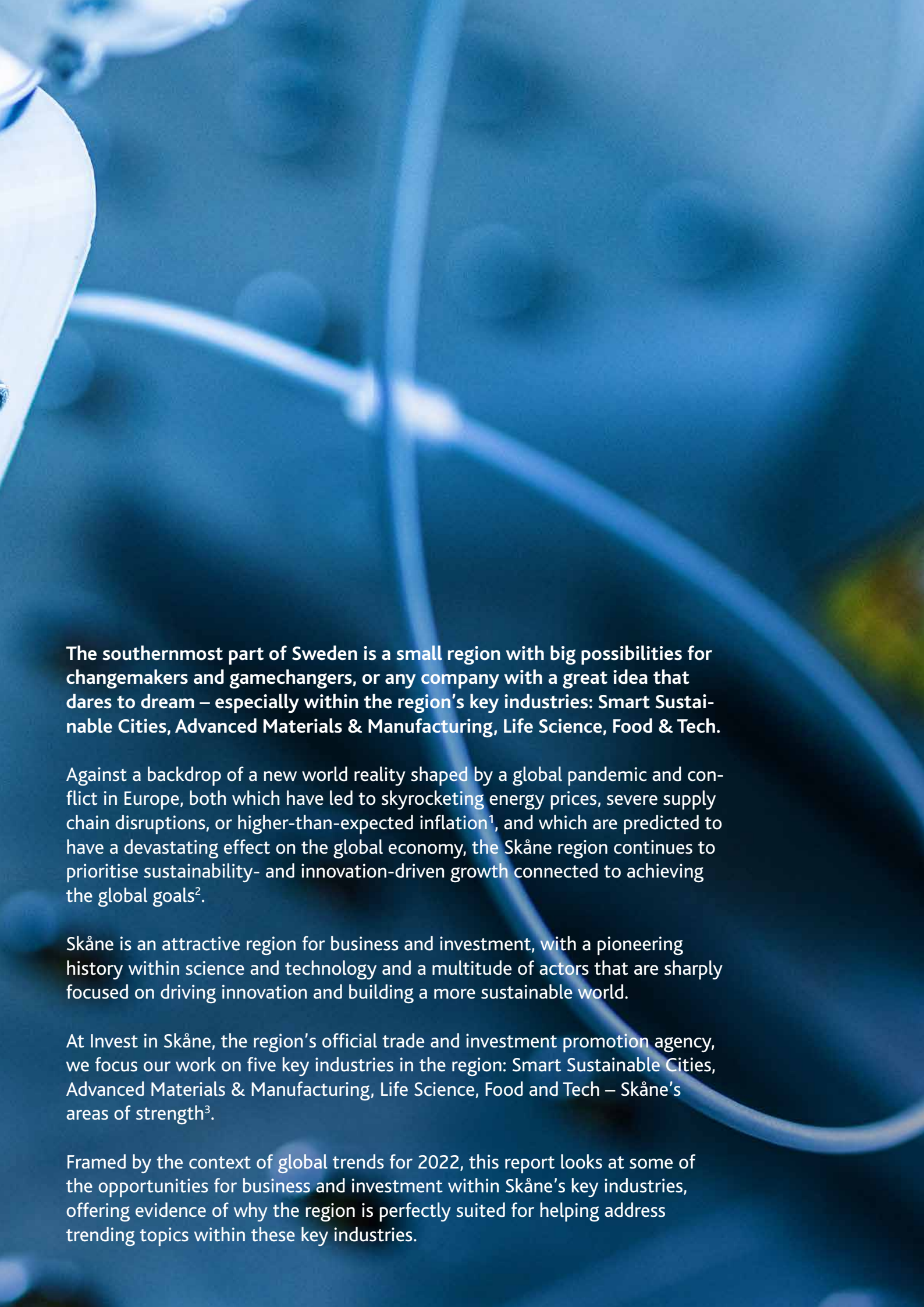


Skåne's readiness for global trends

2022

invest in skåne
part of business region skåne





The southernmost part of Sweden is a small region with big possibilities for changemakers and gamechangers, or any company with a great idea that dares to dream – especially within the region's key industries: Smart Sustainable Cities, Advanced Materials & Manufacturing, Life Science, Food & Tech.

Against a backdrop of a new world reality shaped by a global pandemic and conflict in Europe, both which have led to skyrocketing energy prices, severe supply chain disruptions, or higher-than-expected inflation¹, and which are predicted to have a devastating effect on the global economy, the Skåne region continues to prioritise sustainability- and innovation-driven growth connected to achieving the global goals².

Skåne is an attractive region for business and investment, with a pioneering history within science and technology and a multitude of actors that are sharply focused on driving innovation and building a more sustainable world.

At Invest in Skåne, the region's official trade and investment promotion agency, we focus our work on five key industries in the region: Smart Sustainable Cities, Advanced Materials & Manufacturing, Life Science, Food and Tech – Skåne's areas of strength³.

Framed by the context of global trends for 2022, this report looks at some of the opportunities for business and investment within Skåne's key industries, offering evidence of why the region is perfectly suited for helping address trending topics within these key industries.

Smart sustainable cities

Smart sustainable cities is a growing focus area for Invest in Skåne and initiatives within this space are largely motivated by the global sustainable goals. Sweden, and the Nordics overall, have strong green credentials⁴, and there are many companies working towards delivering sustainable solutions within smart cities.

If we consider that by 2050, it is estimated that almost 70% of the world is expected to live in urban areas, keeping in mind the EU's Green Deal growth strategy⁵ and the latest report from Intergovernmental Panel on Climate Change (IPCC)⁶, the urgency for the world to make adaptations to become more climate resilient is undeniable.

The IPCC report acknowledges the global megatrend of urbanisation, which lifts up the smart cities sector as an opportunity area for the development of climate resilience in urban areas, with a focus on urban infrastructure which includes supply chains of goods and services, mobility, tech and energy.



A key smart city event

The west Skåne city of Helsingborg is running H22, the city-wide innovation initiative which is all about the journey towards becoming a smarter and more sustainable city. H22 includes a number of events, including the H22 City Expo – the single largest event for innovation and sustainable urban development in the Nordic region in 2022. Brought to you by a collaboration between 80 partners from business, academia and other associations, it allows Helsingborg to showcase tomorrow's solutions for an increased quality of life in a smarter and more sustainable city.



Prisma building, the city of Helsingborg

Energy efficiency

Energy continues to be a trending topic worldwide. In the Skåne region, as well as in Greater Copenhagen (a region made up of Eastern Denmark and parts of Southern Sweden), we see growing opportunities for development of sustainable energy solutions, especially in the area of energy efficiency.

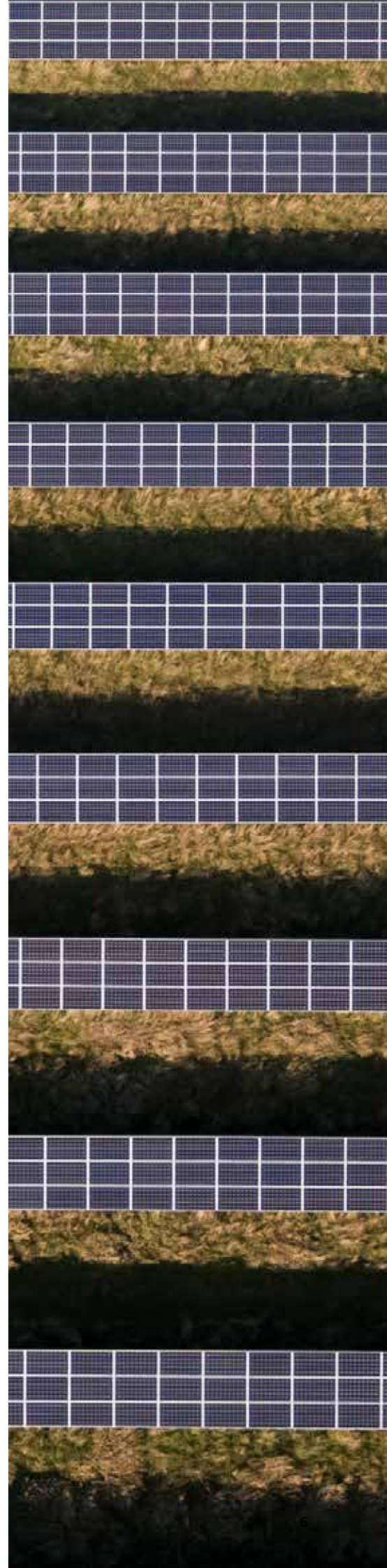
There are a multitude of smart city technologies and solutions being tested and developed in the region, attracting numerous cleantech companies. An examples of one these is Lund's [Emulate Energy](#) – a cutting-edge battery firm from the United States that develops virtual batteries.

Currently, there are also a number of smart energy projects on the go in Skåne, like energy firm, EON's implementation of the world's [first Ectogrid at Medicon Village](#), and their plans to help recycle waste heat from science research facility, ESS, in Lund; redistributing this heat to the local district heating system. There are also other firms like Warm or [ENJAY](#) working with heat reclamation, which enhances to the knowledge and competence of the region within energy management.

In 2021, Greentech firm, ENJAY, was part of a [Swedish-American Chamber of Commerce in New York](#) acceleration programme specifically for Nordic companies trying to enter the US market. The Malmö-based firm specialises in energy efficiency in hostile environments. The company has developed a technical platform that is able to recover energy in polluted airstreams where existing technologies are unable to operate.



There are a vast number of companies in Skåne working within climate, energy and environment areas, in addition to the various networks, clusters, hubs, tests beds, accelerators, incubators, innovation support systems and platforms available to such companies.





The southern part of Sweden is one of the Nordic region's innovation leaders when compared with other European regions, and the southernmost part, Skåne, has an edge in advanced tech expertise within deep tech.

Ongoing development of smart tech

Another great example of innovative companies born and bred in the region is Malmö-based cleantech firm, [Orbital Systems](#), which has developed the world's first digital closed-loop shower. Their breakthrough innovative solution cuts water consumption by 90% and energy consumption by 80%.

Smart tech is also high on the agenda within the smart cities sector – with projects and activities related to the internet of things (IoT), smart sensors for, e.g. monitoring air quality; all with the aim of optimising buildings for maximum sustainability. Smart tech also covers software solutions for analysing building and city data, with companies like Malmö's [Position Green](#), which offers competitive platforms for monitoring environmental data.

The southern part of Sweden is one of the Nordic region's innovation leaders when compared with other European regions⁷, and the southernmost part, Skåne, has an edge in advanced tech expertise within deep tech. The region offers a wide range of technology companies, from global leaders to well-known startups; including firms within software, hardware and network solutions, to those working with sensors, IoT, AI and embedded solutions. Innovative tech companies in the Skåne region are developing solutions and driving projects related to Smart Buildings, Smart Cities, and Smart Transportation.

One such project is a feasibility study led by [Future By Lund](#) partner, [AFRY](#), located in Hässleholm, another Skåne city⁸. The task is to find ways to transport goods in autonomous vehicles on ordinary streets in an urban environment, with a focus on creating a digital infrastructure that covers the entire logistics value chain. The project's vision is to show how the smart city can create sustainable solutions with higher efficiency, increased accessibility and, possibly, also greater profits.

» Hässleholm will be the first city in Sweden with autonomous food transport on public roads. The investment is a collaboration between, among others, the energy firm EON, truck manufacturer, Scania and Axfood-owned, Bergendahl Foods.



Did you know

That Malmö is Sweden's third largest city and the first Swedish city to sign the United Nations' "A Declaration of Cities' Commitment to the 2030 Sustainable Development Agenda.

The city of Malmö

Last-mile delivery

It is no surprise that the pandemic accelerated the growth of e-commerce, leading to opportunities related to fulfilment services, specifically 'last-mile delivery' – the final step of the purchase journey before items arrive at your door.

Last mile delivery falls within the smart mobility sector, where the city of Lund, for example, has an active and growing hub⁹. The region offers good competence in the area of electronics for vehicles, with, e.g. Volvo developing all its software for cars just outside Lund.

Within mobility sector business areas, Skåne also offers further opportunities for collaboration with local actors for investment or research. This will be made possible when the Smarter Mobility Hub is launched in Lund's [Ideon Science Park](#) in April.

The hub will be available to international companies who wish to connect with both organisations and the mobility-related ecosystems that exist in Skåne, and who might consider establishing here. Companies selected to be part of the hub will get access to office space in Ideon Science Park where they will have access to the mobility related ecosystem, as well as all the equipment and support to take their business to the next level.

On a final note, and related to urban mobility, the construction and civil engineering sector in Sweden, which includes the manufacture, transport and processing of materials for both the construction and refurbishment of buildings and transport infrastructure, accounts for approximately 20% of Sweden's annual CO2 emissions¹⁰ making sustainability within the building and construction sector a high priority for both the country and the region, with high demand and need to find solutions for sustainability challenges.

Malmö is an important city in this regard. Apart from being Sweden's third largest city and the first Swedish city to sign the United Nations' "A Declaration of Cities' Commitment to the 2030 Sustainable Development Agenda"¹¹, it has undergone significant change throughout the construction value chain, with a goal to reach a climate neutral building and construction industry with net zero emissions by 2030 and, be climate positive by 2035¹².

» Skåne also offers further opportunities for collaboration with local mobility sector actors for investment or research.

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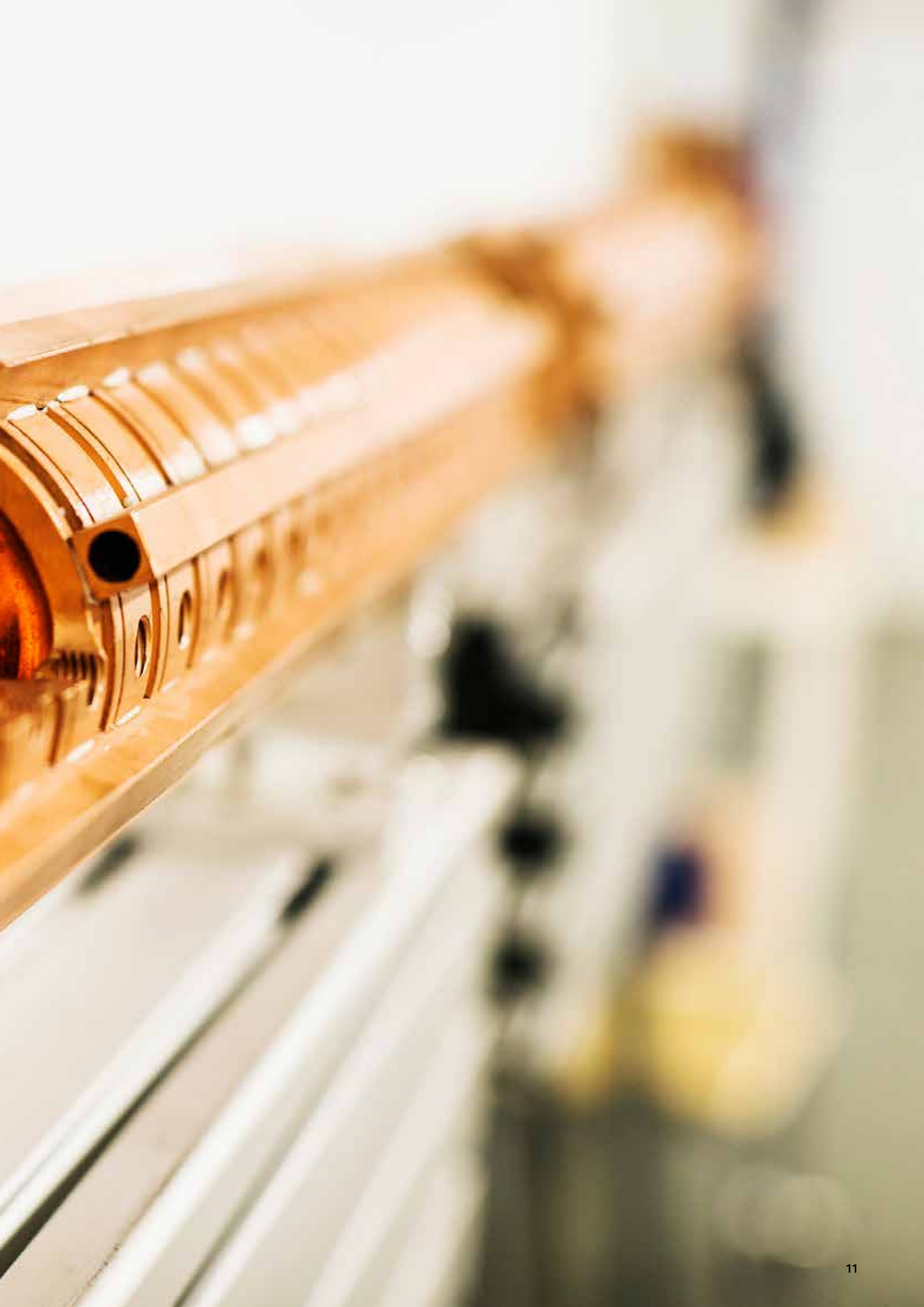
Advanced materials & manufacturing industry

Skåne is fast becoming one of the most advanced material science hotspots in the world, with a knowledge intensive ecosystem that pushes the boundaries of materials innovation through collaborative research and testing.

The value of the region is further enhanced by the presence of not one, but two state-of-the-art research facilities – [MAX IV Laboratory](#) and the [European Spallation Source](#), both offering world-class tools and services for material science research, as well as Lund University's [NanoLund](#), renowned for its work in nano-technology.

The following are three main trends we see within the advanced materials and manufacturing space.





A push towards next-generation semi-conductors

In the advanced materials sector, semi-conductors have a pivotal role to play in sustainable tech and industrial growth. They are crucial part of many everyday items from simple flashlights to mobile phones and provide the basis for information and communication technology, computing, transportation, health care and manufacturing¹³.

Due to challenges in the semi-conductor value chain worldwide, the EU has been needing to raise its game on the development, production and use of key technologies. The recently unveiled EU Chips Act¹⁴ is expected to help secure this with its comprehensive set of measures to "ensure the EU's security of supply, resilience and technological leadership in semi-conductor technologies and applications". It is also expected to "... bolster Europe's competitiveness, resilience and help achieve both the digital and green transition"¹⁵.

The Skåne region offers a rich ecosystem of both companies and institutions working within the semi-conductor sector, including valuable R&D activities taking place at the Lund University, and at mobile phone giant, [Ericsson](#).

The city of Lund is also home to [Mobile Heights](#), a non-profit Information & Communications Technology cluster organisation and networking community promoting innovation and growth in the digital world by connecting business, academia and society. The organisation is also a member of [Silicone Europe](#).



Silicone Europe

A meta cluster of more than 2,000 companies and research institutions working towards smart mobility, smart living, smart health and the smart Industry overall.

Worth mentioning is [AlixLabs](#), a Lund-based company which has developed a new, innovative method for manufacturing semi-conductor components, a method which makes the components cheaper and less resource-intensive to manufacture, and which can open up a new path for a more sustainable mass production of electronics. Also to be found in Lund is ProNano, a demonstration and pilot production facility providing equipment and testbed facilities to start ups and scale ups within nano-technology and semi-conductor materials.

Ongoing search for more sustainable materials

Another hot topic worldwide is sustainable materials – relating to materials for construction, automotive, manufacturing and packaging industries. The aim is to use or develop more sustainable materials that create less of a climate burden, as well as factor in the circularity of material production, with specific competence both in both Sweden and Denmark.

An example of a green tech company producing more sustainable insulation is Malmö based, [Ekolution](#). Their hemp fibre and hemp lime products are a climate- and human-friendly alternative to mainstream thermal insulation products for both commercial and residential construction. The region is also home to food packaging and processing giant, [Tetra Pak](#), a company that applies sustainability and circularity thinking all

across its value chain; aiming to develop solutions that are designed to be as economical with resources as possible. They are innovation leaders when it comes to development of carton packages for food made from materials that are renewable and responsibly sourced, and also recycled.

The region offers much R&D capability in the exploration of new materials with the presence of a variety of incubators for start-ups, as well as access to research facilities providing tools for materials research, in addition to science parks and academic institutions within the Skåne region and within [Greater Copenhagen](#) (metropolitan region that covers Eastern Denmark and parts of Southern Sweden).

» Skåne's rich science and tech ecosystem seems to fuel green innovation in the region when it comes more sustainable packaging materials. One such example is Lund-based start-up, [Saveggy](#), which has just received an awe-inspiring amount of funding to develop their bio-based, edible vegan coating for fruit and vegetables. Their solution offers an alternative to single-use plastic wrapping to help extend the shelf-life of fruit and vegetables.

Transition to green hydrogen

With the green transition being top of mind across Europe, low-emissions energy solutions features high among top global trends, with a focus on hydrogen and fuel cells. To reach a cleaner, greener, and more secure energy future, better batteries and the electrification of vehicles is high on the agenda for many industries. However, hydrogen offers the most potential for innovation and growth related to energy applications and has a significant role to play in Europe's green energy transition.

In 2021, Sweden launched a national strategy for fossil-free hydrogen, and within this context, Invest in Skåne has just concluded a mapping exercise examining the state of play and evolving potential of Hydrogen-based technologies and the energy solutions infrastructure in the Skåne region.

Insights from the mapping exercise strongly indicate that the Skåne region is well-suited to a green hydrogen future. Skåne hosts a comprehensive hydrogen value chain that includes a range of suppliers, services to end users, infrastructure, and different stakeholders supporting the development of technology, production, conversion and storage of hydrogen.

There are a number of reasons that Skåne region is a good fit for both Swedish and international investors, as well as Nordic green hydrogen initiatives: it has an extensive gas grid, which could be used for hydrogen transmission and distribution; there is frontline research at universities focusing on fuel cells, hydrogen production, electro-fuels, and hydrogen safety; it has a strategic geographical position with regards to the direct network of gas and electricity connections to Denmark, Germany and Poland.

The region offers possibilities for partnerships to test and develop large-scale hydrogen production and storage with industry stakeholders, such as [Kemira](#), or [Perstorp](#) and [Barsebäck Kraft](#) industry sites, that could potentially be used to stabilise the region's electricity prices, as well as possibilities with decarbonising industries.

In light of the recent developments in Europe, energy has become an even more critical topic, leading to the EU introducing the REPowerEU plan¹⁶. The goal with these efforts is a joint European action for more affordable, secure and sustainable energy. This turn of events could very likely lend a sense of urgency to the search for hydrogen energy solutions and facilitate new partnerships within the Hydrogen sector which could then accelerate the green transition in Europe.

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Life science

The Skåne region is a major artery of Medicon Valley – the renowned life science cluster at the centre of Nordic life science innovation. The cluster is home to a vibrant ecosystem which includes a vast talent pool and world-leading academic institutions and research infrastructure.

Medicon Valley prides itself on collaboration and scientific excellence, and is made up of more than 50,000 researchers across academia and industry. The cluster includes Skåne's life science ecosystem, and in total, Medicon Valley comprises over 350 biotech, med tech and pharma companies with local R&D, nine life science universities, seven science parks with a focus on life science, and state-of-the-art research facilities.

The Skåne region has a strong legacy of collaboration and innovation when bringing cutting-edge life science solutions to the market and, considering that the life science sector in Skåne makes up 16% of Sweden's life science industry overall, the region is an ideal location for life science businesses to thrive.

Summarised below are three focus areas within life science where we see Skåne having a lot to offer companies working within the identified sub-sectors.



Skåne makes up 16% of Sweden's life science industry overall, and is an ideal location for life science businesses to thrive.

Rising infection control

When the Covid-19 pandemic dramatically forced life science onto the global stage, it also turned a spotlight on infection control. Influenced by the tailwinds of the global pandemic, the infection control sector continues to grow with the global infection control market expected to increase in 2022¹⁷. Infection control has been highlighted as one of Sweden's focus areas and major investments have been made in various national research programmes and facilities for vaccine production.

In 2021, Invest in Skåne surveyed Skåne actors within the infection control sub-sector, and confirmed that the region is a significant stronghold in the area, from both an academic research and industry or business perspective.

Infection control is quite a broad area but there has been a distinct increase in opportunities within the sector, greatly enabled by the pandemic. Within [Medicon Valley](#), there are currently about 150 new projects within virus infection control (vaccines and vaccine development)¹⁸.

Research taking place in the region has been instrumental in the development of new technologies in this area, which could be described as the mRNA revolution. This kind of technology has not been applied to vaccine development before, but innovation was required, and it became necessary to explore alternative ways to tackle vaccine development.

» Lund is also home to research infrastructures like Max IV Laboratory and the European Spallation Source which have already been contributing to SARs-Cov2 research related to vaccine development. Both facilities provide advanced tools and valuable services to life science researchers with advanced tools and valuable services.

Another result of the pandemic that we are seeing in the region, is the growth of companies looking for ways to help tackle secondary complications related to virus infections. An example of such a complication is sepsis and there are a number of companies in the region working within this field.

The pandemic has also put a stronger focus on the development of therapeutics to combat bacterial infections, which includes the continued challenge of

antimicrobial resistance. In this area, it has become critical to find new types of medications to counter the increased prevalence of antibiotic resistance among both humans and animals.

We have also seen an increase on funding in Lund for research projects in the area of bacterial infection, from both national and international funding bodies, with further opportunities that researchers and companies could apply for.

Meet two Skåne-based companies tackling solutions within infection control



[Gedea Biotech](#) which has developed a major new antibiotic-free treatment for vaginal infections.



[Aptahem](#), a biotech firm that develops aptamer-based pharmaceuticals to treat life-threatening conditions in which a combination of coagulation and inflammation are involved. (Aptamers are basically DNA or RNA molecules that can selectively bind to specific target, including proteins or peptides.)



Did you know

More than a quarter of the precision-medicine-related companies in Sweden is located in Skåne.

Continued growth of precision medicine market

Precision medicine continues to be a strong focal point in the life sciences industry globally. According to SwedenBIO's Precision Medicine: The Swedish Industry Guide 2018¹⁹, the Swedish sector is a "is a real area of growth and home to a vibrant start-up scene", and the market continues to grow. This is greatly enabled by the social infrastructure where every Swedish person carries a personal identification number for all medical documentation, along with access to the country's extensive biobanks and quality registers. In addition, Sweden's legacy in biomolecular research and access to available tech and the life science and health tech ecosystems is also a contributing factor.

The Skåne region is a precision medicine hotspot – one of five in Sweden, in fact, and with more than a quarter of precision medicine related companies in Sweden, located in Skåne. The region is especially attractive to precision medicine firms and researchers due to the presence of large academic institutions like Lund University; incubators like [SMILE](#) and [Medicon Village science park](#), both located in Lund, or Malmö's Medeon Science Park. The presence of such organisations in a single region form an attractive ecosystem which can provide start-ups with relevant business tools in the commercialisation process. Access to Medicon Valley would then be an added benefit to those working in the precision medicine sub-sector.



The Skåne region has a proven track record as a home to advanced research and development, and technical expertise, and is a tech hotspot in the area of connectivity, which greatly facilitates the development of digital solutions for health.

Connected healthcare

Connected health is another key topic in the life science industry, globally, a sub-sector which has also been fuelled by the digital transformation in healthcare influenced by challenges imposed by the pandemic. This has led to finding digital solutions for, e.g. the house-bound elderly, with apps and services to be able to remotely track patients' health, and feed this data to healthcare providers.

Health tech companies in Skåne working with connected health range from start-ups to small- and medium-sized enterprises. They are active in diagnosis; therapeutics; prevention and rehabilitation for chronic diseases; cardiovascular diseases; oncology; unhealthy

lifestyle; mental illness; female health – but also in developing support systems for healthcare staff and elderly care. Some of these companies are using med-tech devices, and technologies like imaging, sensors and measurements, medical software, e-health and data analytics. Some even use AI and virtual reality.

Digitalisation of the health sector creates fresh possibilities for new connected health solutions, which will benefit a very broad spectrum of patients, and we foresee much more development in this area, with additional applications and solutions for tracking patients and their progress towards health.

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Food

The Skåne region serves up the entire food chain in one place, with a spectrum of actors covering primary production, through to processing and packaging; and including the retail and consumer sector, and recycling. The region also offers a well-developed innovation system. An estimated 30% all the food eaten in Sweden comes from the Skåne region, with food products being the southernmost part of Sweden's largest goods export.

In addition, Skåne accounts for about 50% of the country's food-related R&D investments. There are four academic institutions in the region offering food-related education and research, while 20% of the country's employment in the food industry is also located here. A massive 85% of all Swedish orchards, as well as 35% of Sweden's packaging industry, reside in Skåne²⁰.

Skåne is also home to global food industry giants like Orkla, IKEA Food, Ecolan, Tetra Pak and Oatly, not to mention a strong food research community via academia, business incubators, science parks and research institutes, science research facilities offering advanced analysis tools and services, and innovation within the plant-based market. The expansive network and ecosystem also includes the Greater Copenhagen region.

Invest In Skåne is currently in the process of examining the state of food tech in the south of Sweden (Skåne & Halland), with a view of gaining a better picture of actors and projects and activities withing food tech in the region. This will be helpful in the context of identifying opportunities for investment.



50%

The Skåne region
accounts for half of
Sweden's food-related
R&D investments.



Plant-based solutions & alternative protein sources

With an increased focus worldwide on climate issues there has been a significant growth in the plant-based market, with companies in the food sector continuing to seek plant-based food and beverage alternatives.

This continues to be a trend in 2022 with opportunities related to the development of new products in the vegan range. This is particularly true for Sweden, and especially the Skåne region, which is ideally suited to developing new products in the plant-based category. Skåne is home to award-winning brands like Lupinta which creates plant-based protein alternatives derived from lupin beans, which are rich in plant protein and fibre, and are also farmed locally. Other brands include

oat milk giant Oatly, and pea-powered milk alternative, [Sproud](#), and Veg of Lund's award-winning potato-based drink, [DUG](#), attesting to the legacy of innovation in the region.

In the plant-based sector, Skåne offers excellent research and development capabilities via incubators, science parks, and academic institutions like top-ranked Lund University, where there are extensive R&D activities around the shift to alternative protein sources, with ongoing projects and initiatives involving rapeseed, oats, industrial hemp, legumes, as well as quinoa and amaranth.

Worth mentioning

[Plant Protein Platform](#) at LU's faculty of engineering, a project gathering work with the aim of scaling up the production of new plant-based foods from the lab scale to the first tests on a pilot scale.

[ScanOats](#), an industrial research center aiming to take a world-leading role in the development of unique products and applications based on oats²¹.

[Sweden Agricultural University's \(SLU\)](#) Alnarp campus close to both Lund and Malmö, is involved in a number of ongoing projects and activities related to alternative proteins and the future of food²². SLU has been a centre of R&D related to horticulture, plant breeding and the rearing of new species of known food crops.

Increased focus on functional food

Within the food sector, there is a strong global trend towards functional food – food that fulfils a function, from nutrient-dense energy bars and mineral or protein rich drinks, to probiotic products like Skåne native, fruit-drink brand, Proviva, all with the aim of promoting a healthy body. This trend suggest that consumers are caring more about what they are putting in their bodies, very likely, fuelled by a global pandemic.

There is an increased interest in the Skåne region to work with food in new and innovative ways, also outlined in the region's food agenda within the context of Skåne's innovation strategy for sustainable development²³.

According to the region's research and innovation council, Skåne offers the next generation of development

and innovation environments that greatly enhances the capability and innovation power of entrepreneurs and companies, academia and public actors by providing good access to places for test and demonstration activities, as well as access to specific and relevant knowledge and competence.

Currently, Skåne offers some production or test bed opportunities for small-scale commercial production, and hopefully, over time, this can lead to more new companies coming in, and increased productivity with a focus on adaptation, growth, and scalability. One such test bed facility is [Balsgård Foodtech](#) based in Kristianstad which works with new technology for food production, offering opportunities to test and develop new vegetable drinks and foods.

In addition, the region offers initiatives like:

[Foodtech Innovation Network](#), a project run by Innovation Skåne together with Lund University, Netport Science Park in Karlshamn and Malmö's Packbridge, helping make test beds available where companies can develop their products, processes, and concepts together with technical experts.

[Open Lab Skåne](#), a collaborative project between Malmö University, Lund University and SmiLe Incubator, with funding from, among others, Region Skåne and the Swedish Agency for Economic and Regional Growth. Open Lab Skåne helps companies gain access to laboratory space, equipment and expertise in life sciences, food technology, material science and chemistry.

Towards circularity & low climate impact for food packaging

With an increased focus on circularity in the food industry, food packaging is another item in the spotlight. Skåne has always been an innovation leader in this regard, especially if one considers Lund-based global food processing and packaging expert, Tetra Pak, with its carton packages for food made from materials that are renewable and responsibly sourced, and also recycled. The company puts a lot of effort into building circularity and a lower carbon footprint into the entire food value chain.

With the region's excellent advantages for R&D, and the presence of incubators and academia, new companies continue to innovate in the areas of packaging in the region. One such example is Lund-based start-up, Saveggy, which has received investment from multiple funding bodies to develop their exciting bio-based, edible vegan coating (alternative to single-use plastic wrapping) applied post-harvest, that will extend the shelf-life of fruit and vegetables.

There is much opportunity for companies seeking to develop new possibilities within this area, but also including the logistics aspects of the food value chain.

» **Northern Lights on Food via the [Lund Institute of Advanced Neutron & Xray Science \(LINXS\)](#)**
A partnership between academia and industry with an aim to bring together expertise in food science and technology together with experts in research techniques using neutrons via ESS and X-rays via Max IV Laboratory, in order to generate new knowledge and cutting-edge technology within food science. Partners from academia include: LU, SLU, RISE, Chalmers, KTH, while partners from industry include, AAK, Tetra Pak, Alfa Laval, Arla, Lantmännen, Orkla, Findus, Larodan, Skillinge, Fisk-Impex AB and IKEA.

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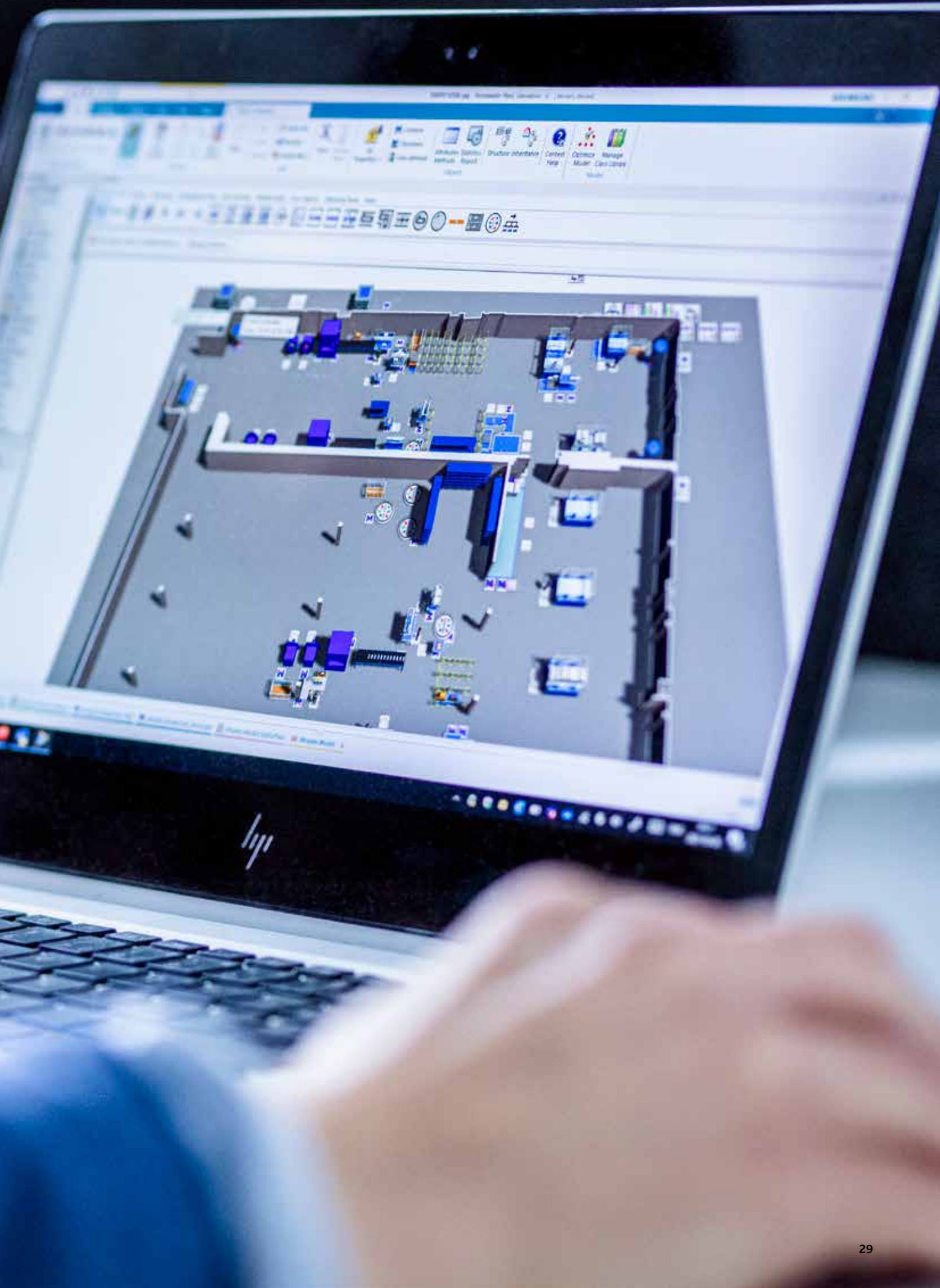


Tech

The southern part of Sweden can be regarded as one of the Nordic region's innovation leaders when compared with other European regions²⁴, and the southernmost part, Skåne, has an edge in advanced tech expertise within deep tech, which includes AI, 5G, image recognition, the Internet of Things (IoT) and big data, along with a small but fast-growing and thriving game development segment.

Skåne offers a wide range of tech companies, from global leaders to well-known start-ups. These include successful firms within hardware and network solutions, sensors and IoT, as well as various forms of digital applications and consulting services, some examples of which include: Sony; Ericsson; Axis Communications; Massive Entertainment, ARM, Volvo IT, IKEA IT, Qlik, Sigma, Telia, Telenor, Mapillary, Neo4j; among others.







Our future with 5G

5G is a strong global trend in the tech sector, presenting opportunities in the Skåne region, where 5G tech was born. 5G is expected to revolutionise digitalisation²⁵ – it is a massive enabler, allowing quicker connection speeds, the connection of more devices, and due to its low latency, 5G enables almost “instant” replies, lending to greater processor and computing power sitting in the cloud, to list just some of the possibilities.

As a component of Industry 4.0 in the areas of control logistics, autonomous vehicles, factory real-time, 5G presents much opportunity for investment in the areas of enhanced reality for both business and pleasure (AR/VR), devices talking to devices (IoT), or the creation of media-rich alternate virtual worlds (Metaverse). 5G is also an enabler of advances in medical equipment, in remote services and surgery, and will be a major building block of future digitalisation.

Lund is home to a massive 5G cluster, with work already underway on sixth generation communication systems, 6G, led by, among others, Ericsson. We are aware that Ericsson is part of an international consortium with a number of key actors aiming to define 6G, but who exactly these players are, is still under wraps.

» The World Health Organisation estimates that by 2050, the world's population of people aged 60 and older will double, with the number of persons aged 80 or older, expected to triple from 2020 to 2050, reaching a number of 426 million²⁷.

A rising ageing population

Increasing levels of high life expectancy in developed countries, boosts the growth of health tech and med tech devices to meet the needs of this population segment. This includes wearable devices that can be controlled remotely or monitored by one's health professionals, or support services and applications to make life easier for people who suffer from chronic conditions like arthritis, cancer, diabetes – even applications for treatments like Cognitive Behavioural Therapy.

In the Skåne region there are number of companies working within health tech and med tech, and a very active, and renowned life science sector, providing my opportunity for collaboration and investment. There is also use of AI as embedded functions in many devices. Sweden has a growing AI community, with [AI Sweden](#), based out of Gothenburg, also having an office in Lund's Mobile Heights.

AI Sweden is the country's national centre for applied artificial intelligence and promotes AI development, knowledge-sharing and AI adoption in society as a whole. There is currently a significant amount of activity in Lund connected to embedded software for all kinds of devices, and one could say that this is a fairly unique skillset for the southern Sweden city; a skillset realised in companies like Sigma Connectivity.

The trend of smart services and apps catering for an ageing population is also closely related to the topic of Connected Health which has been covered above in the context of the Life Science industry.



Growth of the creative industries

Gone are the days when digital games were just a form of entertainment. Games are now virtual spaces where people can meet up, hang out and interact with each other, and even attend virtual events. The games industry experienced a boost during the pandemic, and there continues to be significant opportunity for growth and investment in the games sector in Sweden²⁶, and specifically in Skåne region which has a thriving game development scene.

» Skåne is home to about 1,500 game developers, which equates to about 10% of all the developers in Sweden overall.

The region boasts a number of household names, like Malmö-based [Massive Entertainment](#) – a Ubisoft Studio, known for its game Tom Clancy's The Division, and who is currently developing action-adventure game, Avatar: Frontiers of Pandora™, as well as a video game set in the Star Wars galaxy.

[IO Interactive](#) (IOI), maker of the video game series Hitman, is another well-known actor in the Skåne game scene. The Danish firm chose to establish offices in the southernmost part of Sweden due to the active and collaborative game ecosystem that exists in the region. IOI is currently working on a new 007 game, a project that seems well-suited to their legacy in game development.

In Malmö, you will also find [Game Habitat](#), which could be described as a one-of-a-kind organisation in the world. Game Habitat is not only a game development

»» **If the metaverse is all about real-world creativity made digital, then Skåne is the ideal place to establish and seek out inspiration, exchange ideas and collaborate with like-minded creative spirits.**

cluster and hub, but also a network – all with the purpose of helping "create, nurture and grow a thriving, supportive, and inclusive ecosystem for game development in southern Sweden". The organisation enables game-related companies, organisations, individuals and the academic and public sector to succeed by providing support, helping connect people, secure meetings, or even aiding studios to attend international events. Game Habitat is home to the Invest In Skåne-supported initiative, DevHub, a community-focused, co-working office building for game developers, with a number of exciting companies sitting together in the same space.

In addition, the Skåne region provides access to world-leading talent via The Game Assembly, 4th top school for game development in the world, based in Malmö, and which graduates 100 professionals every year as Game Animators, Game Graphic Designers, Game Programmers, Level Designers, and Technical Artists.

The future of Metaverse

When talking about the creative industries, one cannot fail to acknowledge the global rise of the Metaverse concept – interest and speculation in the metaverse grows, even though no-one has really got a good grasp on it yet (to be able to properly define it, predict where it will take us, or what exactly will materialise as a result of it).

Given the thriving creative industry scene in the south of Sweden, and combined with Sweden and the Nordic region's reputation overall for creativity – especially in the context of music, but also when it comes to art, design, film, clothing, furniture, and literature, to name but a few areas, we feel that no place is better suited to engaging the innovative and inspired minds of the creative talent and tech expertise in Sweden for potential metaverse-related explorations and developments.

If the metaverse is all about real-world creativity made digital, then Skåne is the ideal place to establish and seek out inspiration, exchange ideas and collaborate with like-minded creative spirits.

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Endnotes

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