

## The role of IoT in our fast-changing world

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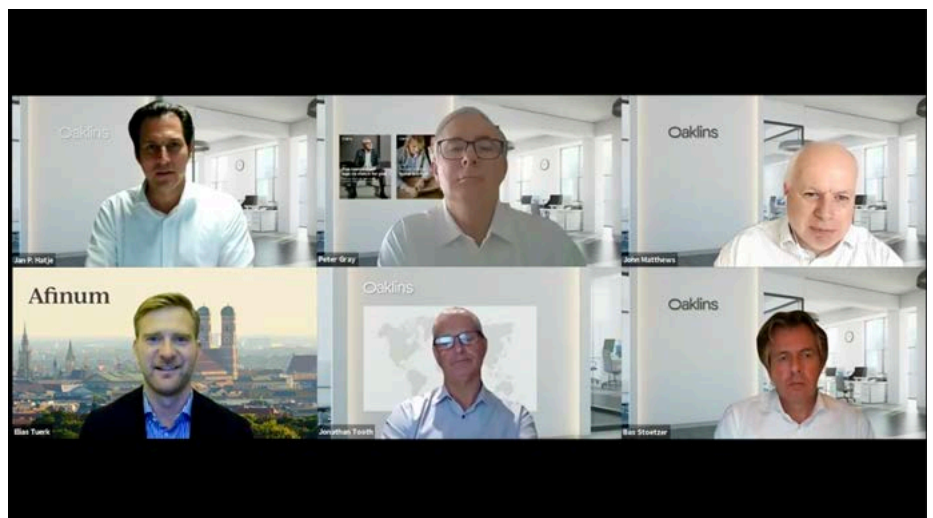
### THE INTERNET OF THINGS: AN OAKLINS REVIEW OF GLOBAL INVESTMENT TRENDS AND OPPORTUNITIES

The Internet of Things (IoT) — a vast and mushrooming network of machines, people and processes — is rapidly proliferating across the globe. With the number of interconnected devices projected to reach 43 billion by 2023,<sup>1</sup> the worldwide IoT market is expected to grow from US\$761.4 billion in 2020 to US\$1,386.06 billion by 2026, at a compound annual growth rate (CAGR) of 10.53%.<sup>2</sup>

Given the extent and speed of its development, the rise of the IoT has tremendous implications for human society and the world economy. Not the least of these is the impact it will have on the business community, and during an hour-long webinar on 18 November last year, Oaklins' market experts shared their perspectives on how the IoT is reshaping numerous industries, creating a wealth of M&A and investment opportunities in the process.

Oaklins' IoT specialist Jan P. Hatje kicked off the conversation by pointing out that, "The Internet of Things is a

#### The Oaklins Panel



Top (L-R): Jan P. Hatje, Peter Gray, John Matthews; Bottom (L-R): Elias Tuerk, Jonathan Tooth, Bas Stoezler

game-changer — not only for many industries, but also for our everyday lives. Even now," he said, "we are already surrounded by hundreds of devices that are connected to the Internet. Fitness watches, cars, even vacuum robots are talking to us.

"But the IoT is not only for consumers," Hatje quickly added. "It is also helping companies become truly disruptive in their industries, as insights from IoT data help uncover customer requirements and improve procedures and operations."

<sup>1</sup> "Growing opportunities in the Internet of Things," McKinsey & Company

<sup>2</sup> "Internet of Things Market Growth, Trends, COVID-19 Impact and Forecasts (2021–2026)," Mordor Intelligence



### JAN P. HATJE

IoT Specialist  
Oaklins, Germany

## SOARING VALUATIONS

Given its global impact, it isn't surprising, he noted, that the valuations for IoT-related companies are currently at an all-time high. This is reflected in Oaklins' IoT index, comprised of 75 publicly listed companies from different market sub-sectors and geographies. The index, which experienced the post-COVID dip ubiquitous to all financial markets, recovered quickly and has since posted gains in the order of 30%. Individual companies are valued at EBITDA multiples of more than 18 to 1, which, Hatje said, is far higher than in previous years.

But, he continued, there is also an enormous spread between the market's different sub-sectors, with data security companies then data analysis firms registering the highest values.

At the lower end are companies that produce and deliver IoT-related hardware and services.

**It makes sense that security and big data firms are the frontrunners, as these are two of the key trends that have been shaping the industry for some time now**

However, Hatje also warned that certain outliers are skewing the averages. He pointed out, for example, that the network and cloud security firm Fortinet was currently valued at a multiple of 75, and that if you excluded it, the average multiple for the IoT's security sub-sector would fall from about 35 to 23.

There is also a huge disconnect between the values assigned to IoT companies in M&A transactions — expressed as bottom-line EBITDA multiples — and the values placed on them by the stock market — expressed

as top-line revenue multiples. Hatje said that an Oaklins' review of some 120 transactions between 2018 and 2021, reveals that the high-low spread is quite extreme. A major reason for this, he explained, are regional differences, where the transaction multiples in Asia, for example, are considerably higher than those in Europe. This is also true for different sub-sectors, where, for instance, developers with applications that address people and processes are valued much higher than the makers of sensors and other companies focused on capturing raw data.

## GARZ & FRICKE: A CASE STUDY

To bring all this home, Hatje described an actual business case, where an IoT company was purchased by a private equity investor. This was a 2017 deal in which Oaklins served as the advisor.

The target company was the Garz & Fricke Group (G&F), a provider of IoT and human-machine interface (HMI) solutions. G&F was founded in 1992,

well before the term IoT was in use, and was initially known as a telematics company. For 25 years, the business remained under the control of its founders and built up a very strong position in HMI by offering a wide array of products and applications, which included touch screens, vending machine controls and payment systems, as well as telemetry and IoT solutions for healthcare and other industries.

Then, five years ago, to accelerate the company's growth and increase its international presence, G&F agreed to be acquired by Afinum, a German private-equity firm that specializes in the tech sector. With the cash infusion that resulted from the sale, the company was able to execute a successful buy-and-build strategy and extend its global footprint.

Afinum director Elias Tuerk explained the key factors that induced his firm to invest in the Hamburg-based HMI solutions provider. These included:

- Founders who were receptive to a **gradual succession plan** and the further professionalization of the company.
- **Double-digit growth** in the HMI market driven by the ongoing transition from traditional push-button machine controls to touch-screen controllers.
- G&F's **strong market position** in a wide range of rapidly growing vertical markets including vending machines, food services, medical devices and security.
- A **diversified and very loyal customer base** with no client accounting for more than 10% of the company's revenue.
- **Strong customer lock-in** for the duration of product cycles that typically run from 10 to 15 years.
- **Strong finances** with sales that were growing at a 20% CAGR, and an EBITDA that was also at 20%.
- **Significant growth opportunities** in adjacent industries and new international markets both within and outside Europe.

“What we had with Garz & Fricke,” explained Tuerk, “was a business that had been growing well and had a good market position, but was also a typical founder-owned, medium-sized German company. There were homegrown accounting tools in place, no real CFO, and an overconcentration on certain verticals such as food services and vending machines.” The company's markets were more or less confined to Germany and Switzerland, he added, and its production was at the limit of its capacity.

“During the past four years,” Tuerk continued, “we have transformed the group's strategy, making the company less dependent on its founders and adding significant production capacity. We also invested heavily in R&D and expanded to six locations globally, including in the USA, India and Taiwan.”

Strategically, he added, the biggest shift involved broadening the company's scope from a more or less exclusive provider of HMI hardware to that of a full-service, one-stop shop for embedded hardware, software and IoT solutions. This change, Tuerk explained, made the company much more attractive to both financial investors as well as strategic buyers.

The strategy paid off handsomely this past October, when SECO S.p.A., Europe's top listed AI and IoT company, purchased G&F for 180 million Euros or 18 times the company's current-year EBITDA. The deal, for which Oaklins once again served as Afinum advisor,

is expected to further cement SECO's lead as Europe's top IoT player, and strongly position the combined company to capitalize on the IoT market's accelerated growth.

## THE CONSUMER IOT MARKET IS EXPLODING



**JOHN MATTHEWS**  
Managing Director  
Oaklins, New York, USA

Shifting gears, John Matthews, an Oaklins managing director based in New York, turned the discussion to the potential for IoT to gather information about consumer attitudes and behavior. What began as an effort to track consumers online, as they moved from one website to another, is now expanding to include the usage and location data captured by the new generation of intelligent personal devices, such as smart thermostats, smart doorbells and smart cars — all of which are now connected to the Internet.

“If you think that the Internet has changed your life, think again. The IoT is about to change it all over again!”

**BRENDAN O'BRIEN**  
CHIEF ARCHITECT AND CO-FOUNDER, ARIA SYSTEMS

The data collected by this exploding world of smart devices, Matthews explained, can provide a much richer picture of consumer behavior than what was previously available. Marketers are no longer limited to working with demographic data about their customers; now they are able to tap into data about their customers' actions, inclinations and preferences. This helps reveal the type of products consumers will find appealing, and suggests ways to produce smarter products that can adjust to a customer's behavior. Such data, Matthews said, can also help marketers adapt and personalize their messaging to make it more effective.

With the proliferation of smart networked devices, the consumer IoT market is exploding at a CAGR of 13.9% and is expected to reach US\$293 billion by 2030. This, in turn, is driving other areas of the market, such as data analytics. "We have such a wealth of data," Matthews said, "that we need analytic tools like AI to help us understand and put that data to use.

"There's so much data available that we're now able to construct digital twins of consumers and their behavior," Matthews continued, referring to the technique of creating a virtual representation of a person, object or process in order to model them and predict how they will behave under different circumstances.

**Using location data, in particular, we're now able to intercept a consumer and determine why they engaged in the various activities reported by their devices**

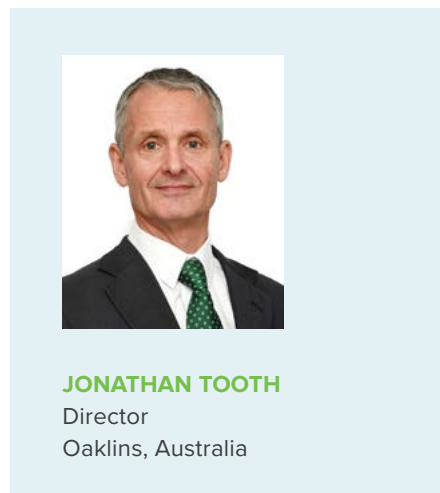
Such capabilities have thrown a spotlight on the whole area of individual privacy, and a number of government regulations, such as Europe's General Data Protection Regulation (GDPR) and

California's Consumer Protection Act, have been enacted in response.

"There's a tension between protecting the privacy of consumers and still being able to deliver utility and convenience," Matthews acknowledged, "and this issue will only grow in importance going forward."

But the IoT market's huge potential, he concluded, is only going to drive more investment and M&A activity in the months and years to come.

**IOT SPURS AUSSIE AG GROWTH**



The panel then turned its attention to Australia and Oaklins' director Jonathan Tooth, who described how the IoT was helping to address some of the challenges facing Australia's agricultural industry.

Australia, he observed, is a large country with a small population and a very big agricultural sector that is under a variety of pressures. People are migrating from the rural heartland to the urban centers on the coasts, leaving an ever-smaller population in the country's interior. The weather, meanwhile, is becoming more extreme and is likely to worsen as climate change progresses, and the situation is further complicated by the very limited mobile

phone coverage available in these underpopulated areas. Taken together, Tooth said, "these factors have broad implications for agriculture and new solutions are needed."

In spite of the obstacles, the Australian government is pushing for agriculture to grow from a US\$70 billion industry to one worth US\$100 billion, and the IoT is seen as the way to bridge this gap. Technologies such as satellite communications can compensate for the limited phone coverage, while GPS systems and remote data collection tools can reduce food production costs, increase yields and provide farmers with actionable data that allows them to manage their land, crops and herds more efficiently. Continuously collecting and analyzing farm data, Tooth said, has the potential to overcome many issues:

- **Animal management** can be improved by continuously tracking cattle movements. This reduces the amount of labor needed to manage a herd, while giving farmers better control over their livestock. Outbreaks of disease, for example, can be thwarted by monitoring large herds for animals in distress.
- **Crop yields** can be boosted by collecting and analyzing weather and soil data. This lets farmers optimize their use of irrigation and nutrients, and make better use of their resources.
- **Energy consumption and labor requirements** can be reduced by automating farm equipment. Automation allows farmers to control and maintain their equipment remotely, allowing them to use their time more efficiently and affording them a better work-life balance.
- **Overall farm productivity** can be increased through the use of data-intensive precision farming. By collecting and analyzing data from all of the above sources, farmers can respond in real time to any changes in their working environment.

## DRONES, SENSORS AND VIRTUAL FENCES

To illustrate how this works in practice, Tooth described how virtual fencing technology developed by Agersens automates cattle herding.

With herds totaling 70 million sheep and 25 million cattle, animal husbandry is a vast, labor-intensive undertaking in Australia. In response, Agersens developed an IoT-based solution that connects each member of a herd to the Internet. The electronic fencing can be used to control herd movements, prevent overgrazing and keep the cattle from entering waterways, which in turn protects the environment.

The virtual fencing is solar-powered and can be adjusted remotely at any time. Much cheaper than wire fencing and much easier to reconfigure than prior generations of electronic fencing, Agersens' virtual fences allow a farmer to bunch his herd into small, tight-knit groups that mimic how cattle evolved to protect themselves on the African plains. With smaller sub-herds, the farmer can practice cell grazing — a resource-efficient and environmentally friendly approach to raising livestock that benefits the soil and prevents damage to the grasslands.

But Agersens is just one of many Australian companies that have developed IoT applications to increase agricultural productivity. Some others cited by Tooth include:

- **Smart Paddock**, which is developing intelligent ear tags that provide real-time information about animal locations, behavior and health status.
- **Ceres Tag**, which also uses smart ear tags in tandem with GPS systems to track herd movements.
- **The Yield**, which offers an end-to-end system for large-scale growing operations that combines sensors, data analytics and a wide range of apps.
- **Farmbot**, which provides remote monitoring of water tanks. Since a single grower's operation may depend on multiple water storage facilities

in different locations that can be hundreds of kilometers from their farm, replacing manual inspections with the Farmbot solution can save the farmer significant amounts of time and labor.

There are also companies that are employing aerial drones to inspect herds and fields, and others making use of AI to analyze soil content and determine the best possible grazing and growing practices.

## EUROPE'S DEBT MARKETS: ANOTHER SOURCE OF FUNDING FOR IOT



**BAS STOETZER**  
Debt Advisory Specialist  
Oaklins, Netherlands

Bas Stoetzer, an Oaklins' debt advisory specialist based in the Netherlands, turned the panel's attention back to Europe and the role of its debt market in fostering growth in the IoT sector. Among European lenders, he said, loan pricing and leverage have returned to pre-pandemic levels, and there is fierce competition among banks and debt funds.

Of special significance are SPACs, which have become a major alternative source of capital for the tech sector. These special-purpose acquisition companies are finding fertile ground in Europe, with its flexible listing rules, extensive community of financial and legal experts, and high demand from institutional investors.

As a result, Stoetzer said, the number of European SPACs is increasing rapidly

and will continue to rise in 2022. SPAC valuations are rising as well: in 2020, the first SPAC listed through Oaklins was for around 55 million Euros, but more recent offerings have been priced as high as 500m Euro on the Euronext Amsterdam exchange.

More generally, Europe's debt funds are growing their market share and broadening the scope of their operations, and Stoetzer noted that currently 80% of the continent's mid-market M&A deals are backed by non-traditional alternative lenders

## THE FUTURE IS CONNECTED

Looking to the future, Oaklins' John Matthews said that IoT market growth will be driven in equal measure by consumer and commercial demand, although demand from consumers is more likely to be the catalyst.



As an instance of this, he pointed to the ways in which consumer demand during the pandemic pressured suppliers into adopting IoT solutions to create a more flexible and efficient supply chain. The further proliferation of smart and connected devices among consumers, he added, will accelerate this process.

Biosensors, drones, robots and all manner of intelligent devices are in the offing, Matthews noted, and these will further catalyze the growth of the IoT. But a key question, he observed, is whether all these futuristic devices can safely interact with people. "Still," he chuckled, "innovative companies like Amazon tend to find a way to make these things work. So, I'm sure we'll soon be seeing all of them, one way or another."

# Our track record

Our clients rely on us to help them prepare for their next challenge, whatever it may be. With deep-rooted sector expertise in IoT, we are able to support you and provide the professional advice required to achieve a successful outcome.

Some of our recent deals completed in the IoT sector include:

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 <p>has been acquired by</p>  <p>M&amp;A SELL-SIDE Private Equity/TMT</p>	 <p>has been acquired by</p>  <p>M&amp;A SELL-SIDE TMT</p>	 <p>has been sold to</p>  <p>M&amp;A SELL-SIDE Private Equity/TMT</p>
 <p>has sold a 60% stake to</p>  <p>M&amp;A SELL-SIDE Private Equity/TMT</p>	 <p>has acquired</p>  <p>M&amp;A BUY-SIDE TMT</p>	 <p>has acquired</p>  <p>M&amp;A BUY-SIDE Business Support Services/Construction &amp; Engineering Services/Private Equity/TMT</p>

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- Debt advisory
- Corporate finance services

IoT is one of our focus areas. Combining comprehensive sector knowledge with global execution has led Oaklins to become one of the most experienced M&A advisors in the IoT sector, with a large network of relevant market players worldwide. This results in the best possible merger, acquisition and divestment opportunities for IoT companies.

If mergers, acquisitions, or divestitures of businesses or business units are part of your strategy, we would welcome the opportunity to exchange ideas with you.



✉ **JAN P. HATJE**

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Jan leads Oaklins' Internet of Things team. He is also a managing partner at Oaklins Germany. Jan has a strong network in this industry and is in regular contact with its key players. As part of his sector focus, he continuously follows developments, publishes newsletters and attends major events. He has advised a number of clients on both M&A and strategic development. He has a deep understanding of the market dynamics and value drivers regarding smart devices, connectivity, big data and intelligent solutions. Notable transactions Jan has completed include Garz & Fricke, vyzVoice, and Höft & Wessel (now Almex).

Oaklins is the world's most experienced mid-market M&A advisor, with over 850 professionals globally and dedicated industry teams in more than 45 countries. We have closed 1,700 transactions in the past five years.

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