Internet of Things (IoT) M&A

Review of the IoT Sector

The growth and development of the AIoT sector have resulted in an increasing demand from clients for our services as they seek to expand their capabilities, gain a competitive edge, and increase market share. M&A deals have played a significant role in shaping the AIoT market, driving consolidation, innovation, and growth. I believe that we can expect to see more such activity as companies look to strengthen their positions and expand their capabilities in this changing and rapidly growing sector.

In April 2023 we launched a new specialism in the IoT space headed by Eric Janosz. He marks the occasion by exploring recent merger and acquisition activity in the AIoT sector along with describing the emerging trends and opportunities within the industry.

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The market: definition and its drivers

The AIoT (Artificial Intelligence of Things) sector is expected to experience significant growth in the coming years. According to MarktoMarket, an M&A data and analytics platform, the global AIoT market size is projected to reach $16.2 billion by 2025, growing at a CAGR of 28.5% from 2020 to 2025. This growth is driving mergers and acquisition activity in the AIoT sector, as companies seek to expand their capabilities, gain a competitive edge, and increase market share.

We will explore the sector's M&A activity, identify emerging trends and present opportunities however, before doing so, we must first define our terms. **AI** refers to the ability of machines to learn from experience and perform tasks that typically require human intelligence, such as recognising speech or identifying objects in images. **IoT**, or the Internet of Things, refers to the network of physical objects or "things" embedded with sensors, software, and connectivity that allow them to exchange data with other devices and systems over the internet. **AIoT**, or Artificial Intelligence of Things, refers to the combination of AI and IoT technologies to create intelligent devices that can learn from data, make decisions, and interact with the physical world. AI and IoT can exist independently but AIoT represents the convergence of these technologies to enable new use cases and applications.

In essence, AIoT builds upon the capabilities of IoT by incorporating AI and machine learning algorithms to enable devices to learn and adapt to their environments, analyse data in real-time, and make intelligent decisions. In contrast, AI and IoT technologies may be used independently to achieve specific objectives.

The growth of AIoT

This can be attributed to several factors, including:

❖ **Increasing adoption of IoT devices:** the number of IoT devices is expected to reach 75 billion by 2025, and this growth is expected to drive the demand for AIoT solutions.

❖ **Advancements in AI technology:** recent advancements in AI technology, such as machine learning and natural language processing have made it easier to process and analyse large amounts of data generated by IoT devices.

❖ **Growing need for predictive maintenance:** predictive maintenance is becoming increasingly important for businesses looking to reduce downtime and improve efficiency. AIoT solutions can help predict when equipment will need maintenance, allowing businesses to schedule maintenance before a breakdown occurs.

❖ **Rising demand for automation:** AIoT solutions can help automate processes, reducing the need for human intervention thus increasing efficiency.

❖ **Increasing demand for smart homes and smart cities:** The demand for smart homes and smart cities is growing and AIoT solutions can help manage energy consumption, improve public safety and enhance overall quality of life.

Overall, the sector is expected to experience significant growth in the coming years, driven by the increasing adoption of IoT devices and advancements in AI technology.

The M&A market for IoT-related companies saw a significant increase in deal activity as illustrated by close to 800 deal announcements between 2015 and 2019. The Grand View research report also noted that the AI and IoT markets are closely intertwined, with AI technology often being used to process and analyse the vast amounts of data generated by IoT devices. As a result, there is likely to be significant overlap in M&A activity between these two sectors.

Pitchbook has suggested that the total deal value of AI-related M&A activity in North America increased from $5.5 billion in 2019 to $7.5 billion in 2020. The report also noted that the COVID-19 pandemic had a significant impact on M&A activity in general, with a slowdown in deal activity during the first half of 2020 followed by a strong rebound in the second half of the year.

Overall, it appears that the M&A market for AI and IoT companies has been growing in recent years, with a significant increase in deal activity and deal value. This is having a significant impact on the AIoT sector driving growth.

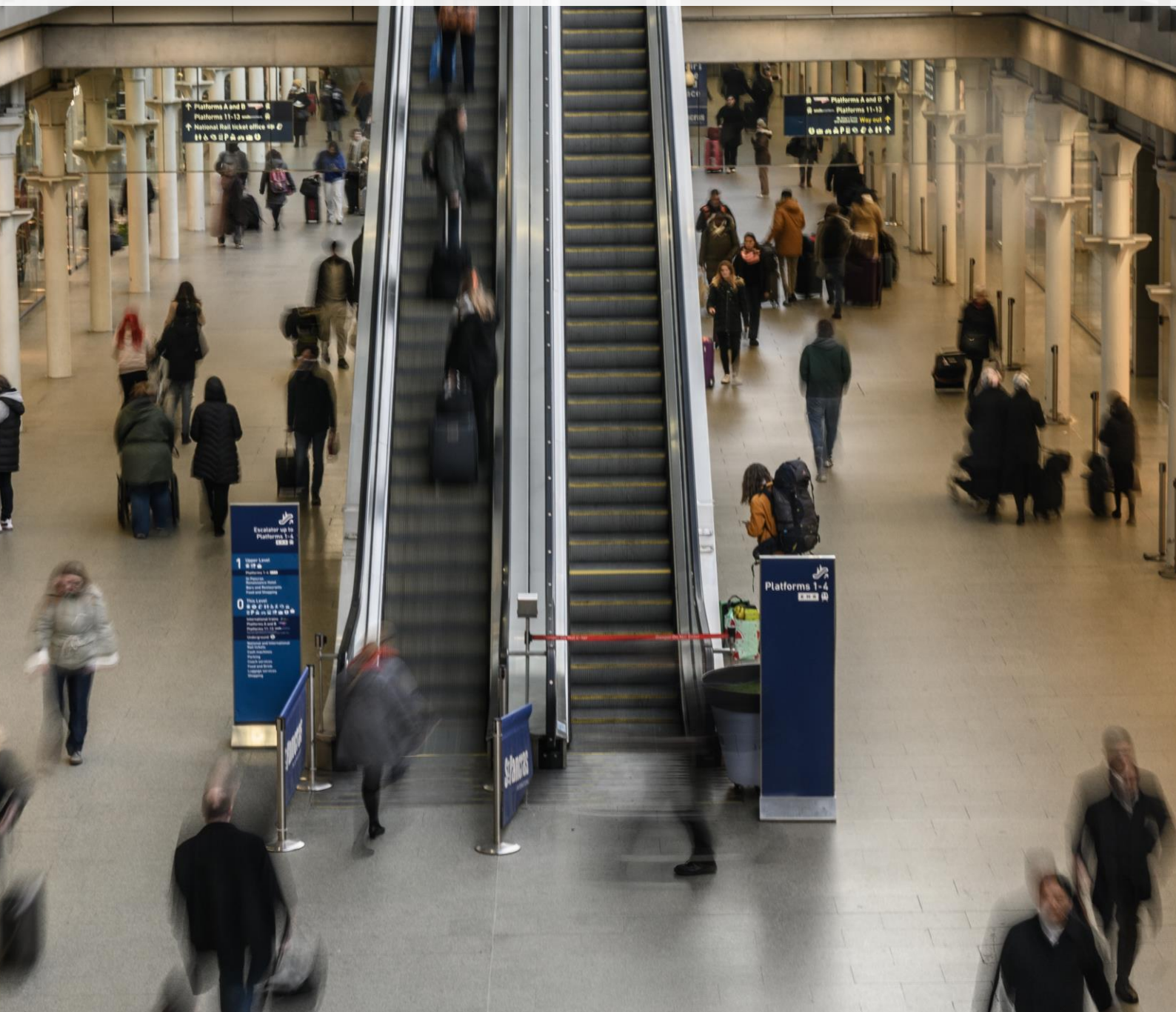# Top trends influencing M&A in the sector

We identify these as the top ten:

1) Consolidation of AIoT start-ups: Large companies are acquiring AIoT start-ups to integrate their technology and talent into their existing operations. In 2020, 93% of AIoT deals were under $50 million, highlighting the prevalence of start-up acquisitions in this space.

2) Vertical integration: Companies are looking to integrate AI and IoT technologies across their entire value chain, from production to distribution and customer service. In 2020, the healthcare sector accounted for the highest number of AIoT deals, followed by industrial automation and transportation.

3) Focus on edge computing: The need for real-time data processing and analytics is driving M&A activity in edge computing, which enables processing and analysis of data closer to the source. In 2020, 67% of AIoT deals included edge computing.

4) Cross-industry partnerships: Companies are forming partnerships with firms outside their core industry to leverage AIoT technologies for new applications. In 2020, the most active acquirers of AIoT companies were tech companies, followed by industrial conglomerates.

5) Emphasis on security: With the proliferation of connected devices, cybersecurity has become a key concern for AIoT companies. In 2020, 31% of AIoT deals involved companies specialising in cybersecurity.

6) Investment in data analytics: AIoT companies are investing in data analytics to derive insights from the vast amounts of data generated by connected devices. In 2020, 67% of AIoT deals included data analytics as a key technology focus.

7) Increased use of AI in IoT devices: Companies are incorporating AI into IoT devices to enable predictive maintenance, optimise energy consumption, and improve user experience. In 2020, the most active targets of AIoT acquisitions were companies specialising in smart home devices and wearables.

8) Expansion into emerging markets: Companies are expanding their AIoT offerings into emerging markets, where demand for connected devices and services is growing rapidly. In 2020, the Asia-Pacific region accounted for the highest number of AIoT deals, followed by Europe and North America.

9) Focus on sustainability: AIoT companies are developing solutions to reduce energy consumption and emissions, and increase resource efficiency. In 2020, 19% of AIoT deals were focused on sustainability.

10) Integration of 5G: The deployment of 5G networks is expected to accelerate the adoption of AIoT technologies, as it enables faster data transmission and processing. In 2020, 27% of AIoT deals involved companies specialising in 5G technologies.

Merger and Acquisition activity

Many transactions are of very high value an example being the $40 billion acquisition of Arm Holdings by NVIDIA. An aspect of NVIDIA's motivation for doing so is to accelerate the development of AI technology for IoT devices and help them become a leader in the AIoT market. There are many others such as the acquisition of NXP Semiconductors by Qualcomm for $47 billion. This deal allowed Qualcomm to expand its product offerings in the IoT market and strengthen its position in the automotive sector, Microsoft's acquisition of Nuance Communications ($19.7 billion), Intel's acquisition of Habana Labs ($2 billion) and Google's acquisition of Fitbit ($2.1 billion).

Our own focus though is different: our work, on both the buy and sell sides, is mainly centred on transactions of $10-$100 million value involving US, UK and Canadian clients. The table which follows shows a selection of AIoT transactions, along with their rationale, thought to be within that range. Only in two cases was the transaction value made public: the acquisition of Apption Labs by Traeger Pellet Grills ($100m) and the sale of Mnubo to Aspen Technology (CDN $110m, approx. $82m). The majority of companies acquired across the whole sector had revenues of between $1 million and $10 million.

ACQUIRER	TARGET	DATE	RATIONALE	CLASSIFICATION
Aspen Technology (USA)	Mnubo (Canada)	Jul-19	To accelerate its asset optimisation solutions, which will combine deep process expertise with AI	AI-powered asset optimisation solution for the industrial sector
Cognizant (USA)	Bright Wolf (USA)	Nov-20	Enhance acquirer's enterprise IoT technology and solution offerings as well as expand capabilities in large-scale industrial connected systems	Industrial IoT technology and solution provider
Milliman Inc. (USA)	10 healthio (USA)	Jun-20	To combine the forces of IoT, Big Data and AI in healthcare to predict adverse events and progression of chronic conditions	IoT, Big Data and AI in Healthcare
Marston Holdings (UK)	Vortex IoT (UK)	Jan-20	Strengthen offering by delivering complementary air quality and acoustic monitoring solutions that maximise awareness, identify pollution hotspots and improve public health	Smart City Technologies
Velos IoT (Jersey)	NextM2M (Denmark)	Apr-22	Extension of global footprint and development capabilities.	IoT Connectivity Management
Generac Power Systems (USA)	Blue Pillar (USA)	Oct-22	Expand power management offerings and provide customers with an efficient way to deploy and maintain Industrial IoT connectivity	IoT Connectivity Management
View Inc (USA)	IoTium (USA)	Jul-21	Simplify establishing and managing secure network infrastructure for Industrial IoT and to enhance smart building offerings	Secure Network Infrastructure for Industrial IoT
Traeger Pellet Grills (USA)	Apption Labs (UK)	Jul-21	Enhance IoT consumer products offering and to leverage Apption Lab's expertise in wireless technology and smart devices	IoT Consumer Product
Digimarc (USA)	EVRYTHNG (UK)	Nov-21	Enhance IoT platform for consumer product brands and to offer real-time insights	IoT Consumer Product
Redsquid (UK)	Triumph Technologies (UK)	Jun-21	Expand offerings in IoT, voice, data, cybersecurity, cloud and IT services	IoT Solutions for Various Service
EMC (USA)	L70 Technologies (USA)	Feb-21	Leveraging expertise in IoT and UV-C disinfectant solutions and to expand its offerings in the healthcare industry	IoT Solutions for Various Service
Deepk (UK)	Fabriq (UK)	Jun-22	Strengthen IIoT platform for energy, resource and smart building data and enhance ability to provide smart connected spaces	IT Operations Management and IoT Cloud Services
Sapphire Systems (UK)	ITOM Solution (UK)	Jan-21	Strengthen IT Operations Management, AiOps, and IoT cloud services capabilities	IT Operations Management and IoT Cloud Services
Twilio (USA)	Electric Imp (UK)	Jul-20	Strengthen IoT platform for connecting cloud services with the real world and enhances ability to offer secure and reliable IoT solutions	IT Operations Management and IoT Cloud Services
Allegion (USA)	Yonomi (USA)	Jan-21	Expand IoT platform offerings and enhance ability to integrate and automate connected devices	IT Operations Management and IoT Cloud Services

Our conclusions

M&A activity has played and will continue to play a significant role in shaping the AIoT market, driving consolidation, innovation, and growth. The M&A market in the AIoT sector is expected to be protected and continue to grow as:

❖ It is rapidly growing and companies are constantly seeking to expand their presence and capabilities.

❖ The integration of AI and IoT technologies is becoming increasingly important for businesses in across many industries especially manufacturing, healthcare, transportation and energy.

❖ The AIoT sector is highly fragmented, with many small and medium-sized companies offering niche products and services. This fragmentation creates opportunities for larger and more ambitious companies to acquire to gain a competitive edge.

❖ Non-IT companies strive to solidify their positions and enhance their capabilities.

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